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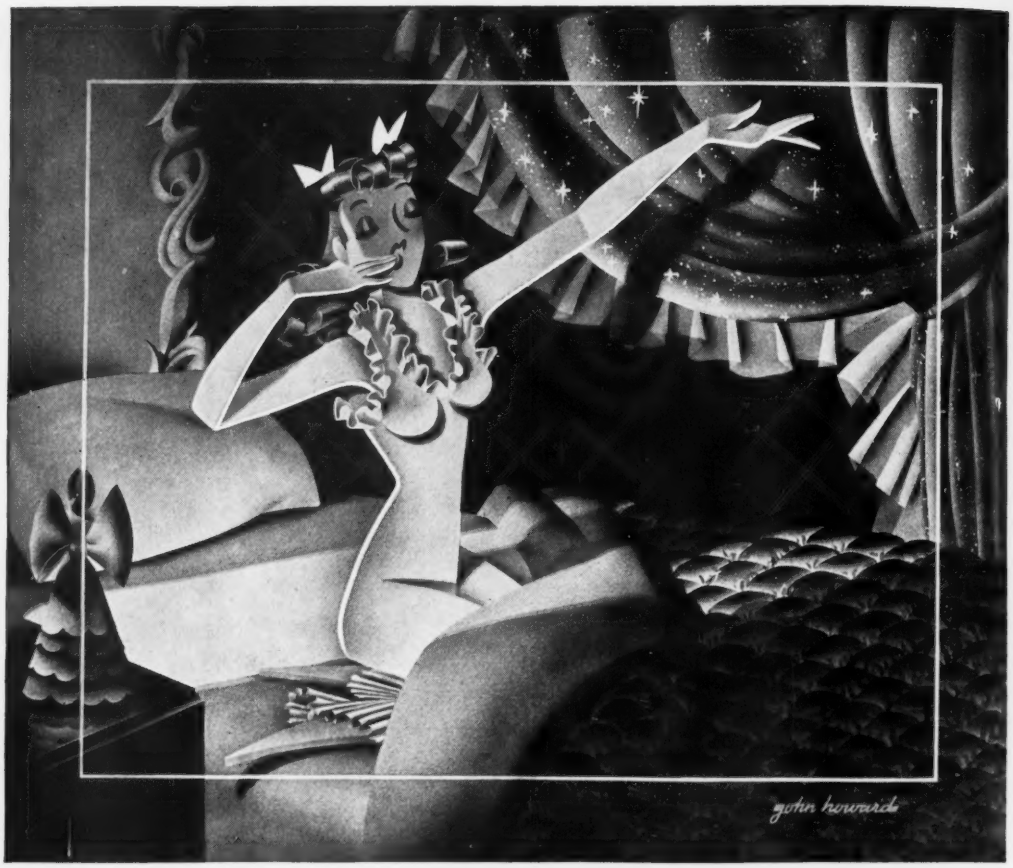

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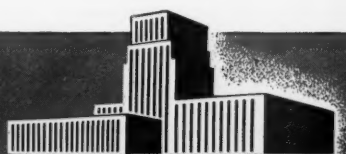

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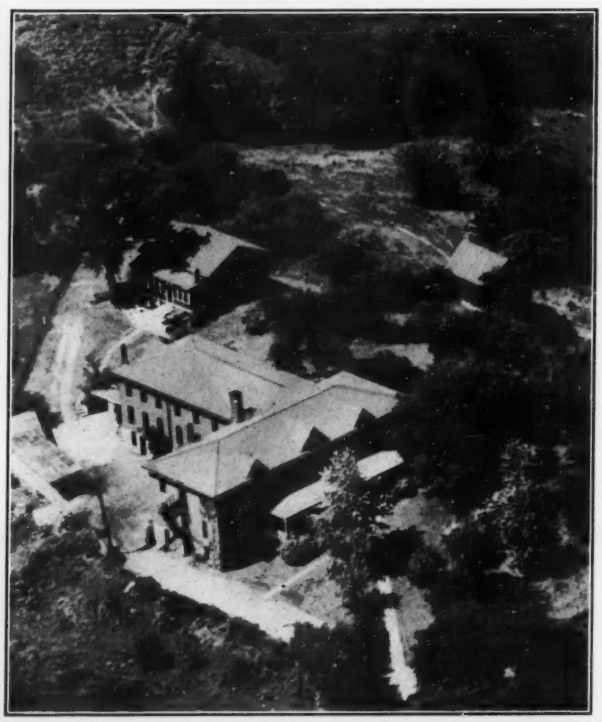

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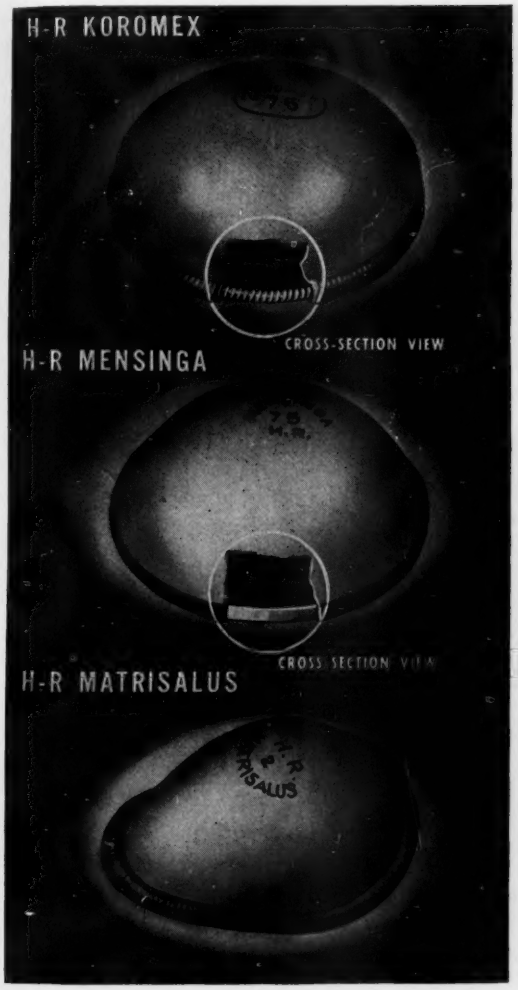

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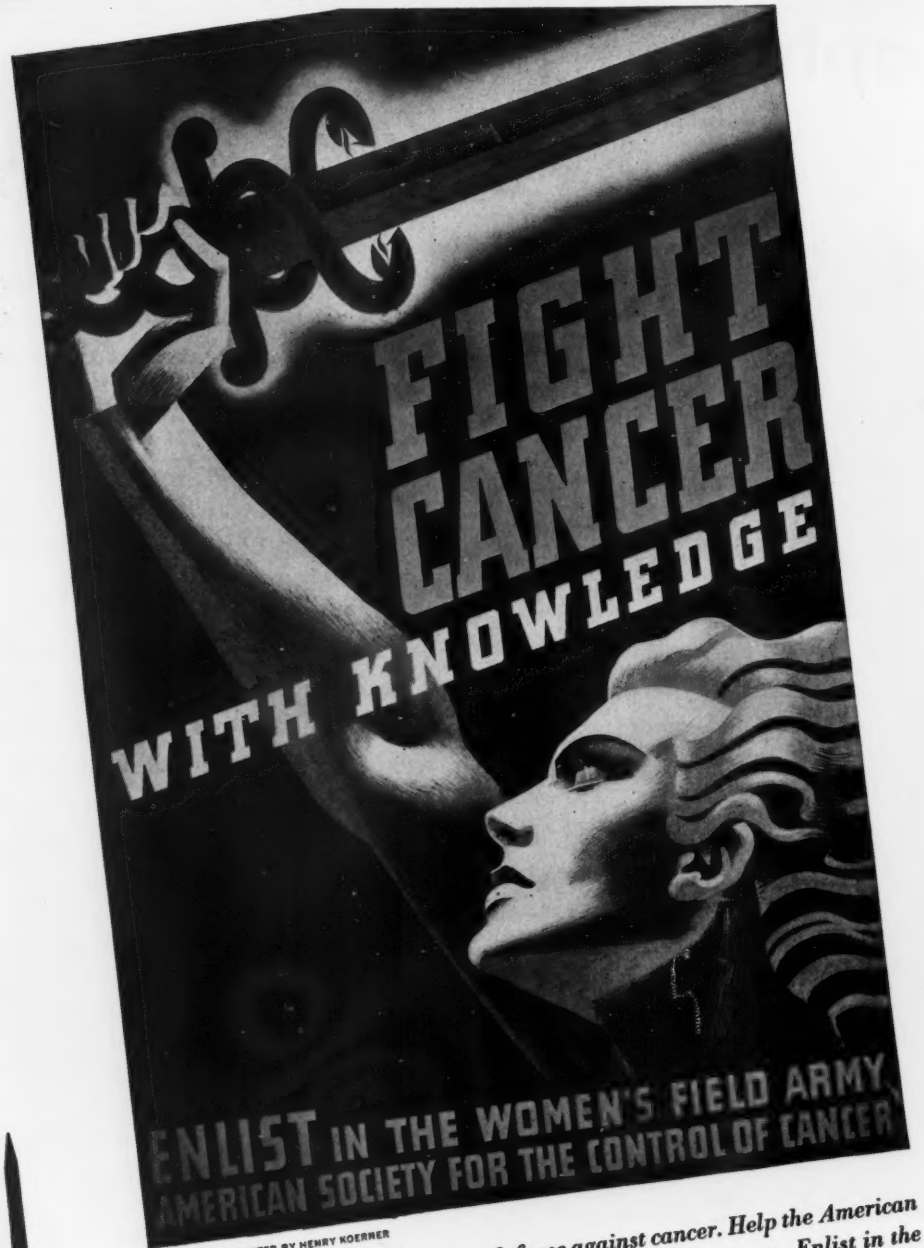

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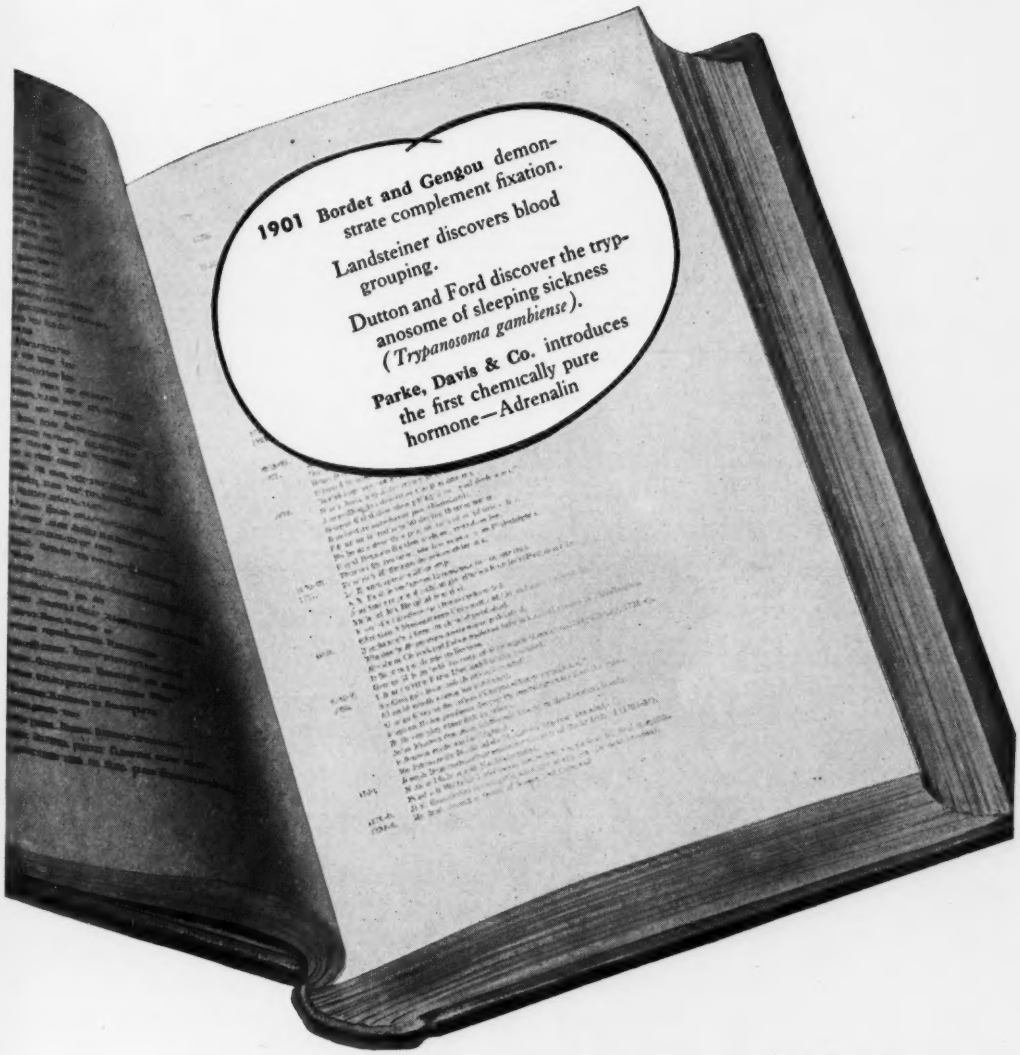
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GYNECOLOGIC MANAGEMENT OF THE BARREN MARRIAGE*

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It is amazing that most women assume full responsibility for their failure to become pregnant, and it is inconsistent that scientific papers dealing with this problem should be entitled "Female Sterility." This term implies that husbands are usually fertile, whereas forty per cent of them must either share or accept complete responsibility for a childless union. It is misleading also, because there are few individuals who can be considered absolutely fertile, and only a small number who are absolutely sterile. One must not forget that human beings, at best, are only relatively fertile. Consequently, "Barren Marriage" is a more appropriate title; it emphasizes the mutual liability of both parties in the wife's failure to conceive. Furthermore, the majority of barren marriages do not result from a single cause in one party, but from a multiplicity of factors in both; some may seem trivial but, added together, they are sufficient to prevent conception. Success in the relief of barrenness, therefore, depends on adequate examination of both the husband and the wife, followed by systematic elimination of all contributing factors from both parties. This may require the assistance of a urologist, an internist or an endocrinologist.

Everyone has a fair degree of success in the management of barren marriages, but, with most of us, the incidence of failures has been discouraging and far too high. In an effort to improve results, I have recently reviewed the current literature, have heeded some of the admonitions by recognized authorities that I formerly considered nonessential, and have completely revamped my management of these cases. The improvement in results has been gratifying.

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DIAGNOSTIC STUDIES

The gynecologist, or the physician first consulted, is obligated to make a diagnosis, i.e., to discover the factors which have contributed to the barrenness of a marriage. He must not jump at conclusions and he dare not take anything for granted. His examination must be thorough and I recommend that it include: (1) a search for gross abnormalities in the female generative tract, (2) an evaluation of the male factor, (3) study of the uterine cervix, (4) testing of the fallopian tubes for patency and (5) an investigation of the endocrine system.

Gross Abnormalities in the Female Genitalia: In addition to a pelvic examination, at her first visit the wife is subjected to a thorough general physical examination; blood counts are made and urine is analyzed. One should also attempt to evaluate the function of the glands of internal secretion from the height, weight and body configuration, together with the distribution of fat and hair.

The lower genital tract is searched for infection—leucorrhoeal discharges are of considerable importance. The reaction of vaginal and endocervical secretions is ascertained by means of nitrazene papers. Normal cervical secretions are alkaline, pH of 7 to 7.5; the healthy vagina is acid, pH of 4 to 4.5. The cervix is not only inspected but its canal is also tested for adequate patency.

The size of the uterus is significant. Hypoplasia may be suspected from the character of menstrual periods, the presence of an elongated small cervix with tiny external os, or from the difficulty experienced in palpating the corpus; the depth of the uterine cavity can be ascertained with a sound; normally it is about 7.5 cm.

Retrodisplacements of the uterus, with anterior tipping of the cervix away from the so-called receptaculum seminis, has been over-emphasized as a cause of infertility. However, following Sampson's description of endometriosis, retroflexion assumed a more important role in the problem of infertility. Pelvic endometriosis usually results from retrograde menstruation and such back-flow of menstrual blood is most likely to occur when the cervix is stenotic, the uterus is retroflexed, or fibroid tumors distort the uterine cavity. Pelvic endometriosis occurs fre-

quently in a private clientele, especially in young women who fail to become pregnant and among older patients with uterine fibroids. Thus far there is no convincing explanation for the low fertility of women with pelvic endometriosis; their tubes are patent; they ovulate, and indeed they may become pregnant—but not frequently. This condition should be suspected when the uterus is retroflexed and fixed, the ovaries are enlarged and adherent, and when there are tiny, firm sensitive nodulations either in the cul-de-sac, the rectovaginal septum or on the uterosacral ligaments. If the patient complains of dysmenorrhoea that has been acquired during adult life and consists, in part, of pain referred to the rectum, one can be almost certain that he is dealing with pelvic endometriosis.

Gynecologists disagree about the relationship of uterine fibroids to a woman's failure to conceive; however, no one denies that, through mechanical interference, these tumors may be responsible for miscarriages, premature labors or dystocia at term. However, there is another phase of the fibroid question which merits attention. Infertility and habitual abortion are closely allied problems, and certain instances of so-called infertility may, in reality, be cases of repeated early abortion—but the abortion occurs at such an extremely early stage that the gestation is not recognized. Very early spontaneous abortions may result from developmental defects either in the fertilized egg or in the endometrium. Since uterine fibroids tend to alter the normal physiologic response of the ovaries and the endometrium, they may be of considerable import in the barren marriage problem.

Palpable adnexal masses may be residues of pelvic inflammatory disease, or cystic ovaries, signifying either previous inflammation, endometriosis, endocrine imbalance, or new growth.

The Male Factor: The second step in the diagnostic study is an examination of the husband's semen. Preferably, the specimen should be obtained after several days of continence. It should be brought to the office in a clean glass container, not in a rubber condom. Both the powder on the condom, and the rubber, may inhibit the motility of spermatozoa. It is the gynecologist's duty to determine (1) the amount of semen (it should be about 4 c.c.); (2) the number of spermatozoa per cubic centimeter (the normal is said to be about one hundred million per cubic centimeter); (3) the motility of the spermatozoa (ninety per cent should be actively motile and migrating at body temperature, for at least one hour after ejaculation); (4) the morphology of the spermatozoa (at least eighty per cent should be normally formed), and (5) one should search for adventitious elements, such as leucocytes and red blood cells.

Most husbands consider themselves fertile if sexually potent; they actually believe that patent tubes plus a potent male should invariably result in a pregnancy. However, husbands must be referred to a urologist if their semen does not conform in all respects to the aforementioned criteria. According to Mazer and Israel, "The degree of fertility of the male decreases, and approaches zero, with diminution of the volume, decline in the number and viability of spermatozoa, and with an increase in the percentage of abnormal forms." Failure to recognize deficiences in semen has, no doubt, been responsible for some of our previous failures; possibly all husbands should be examined by a urologist, preferably by one who is especially interested in the problem of male infertility.

Patency of Fallopian Tubes: Patency of the fallopian tubes is determined by transuterine insufflation with carbon dioxide gas—this is a Rubin Test. I prefer an apparatus which receives CO_2 at a constant pressure, measures the volume of gas which passes into the abdomen and includes a mercury manometer. The ideal time to make this test is three to seven days after the conclusion of a menstrual period. Uterine bleeding and active inflammation either in the cervix or the fallopian tubes, are contraindications to this procedure. Under normal conditions, gas flows through the fallopian tubes freely at a pressure that fluctuates between forty and eighty mm. of mercury. The escape of gas through the tubes is recognized by the behavior of the mercury column, by auscultation over the lower abdomen and by shoulder-pain, which appears when the patient sits up. I do not consider kymographic recordings an essential part of the Rubin Test. If gas fails to pass through at 180 to 200 mm. Hg., the pressure should not be carried higher for fear of traumatizing the tubes. The position of the cannula in the uterus is changed several times, and gas pressure each time allowed to rise to 180 mm., before it is assumed that gas is not going to pass through at that test. The Rubin Test should be repeated three or four times, preferably at monthly intervals, before one is justified in concluding that the tubes are actually closed. Lipiodal injections are not used routinely; this procedure is reserved for patients who wish to consider surgical relief from occluded tubes; the chief value of hysterosalpingography is to demonstrate the exact site of tubal obstructions. Lipiodal and similar oily opaque media are not innocuous; sometimes they cause tubal inflammation and, if retained in the tubes, may set up a foreign-body reaction.

Study of the Uterine Cervix: The next step in

diagnosis is a Hühner Test. This should be performed at the time of ovulation, i.e., twelve to fourteen days before the expected onset of a menstrual period. The wife reports for examination several hours after coitus. If the husband's semen is normal, one should still find spermatozoa in the vaginal vault; however, they will probably be immotile, due to the hostile action of normal acid vaginal secretions. The presence of spermatozoa in the posterior vaginal fornix conclusively proves that semen had been delivered into the upper vagina. Mucus is next aspirated from the cervical canal and it is thought that cervical mucus is most abundant at the time of ovulation. In normal individuals, a drop of clear glairy endocervical mucus, aspirated six to eight hours after intercourse, contains at least eight to ten actively motile spermatozoa per high power field.

Consequently, the Hühner test determines that (1) intercourse was consumated normally, or (2) that the husband has hypospadius or premature ejaculations or (3) that the wife suffers from vaginismus which results in prompt evacuation of semen from the vagina. It also demonstrates the ability of spermatozoa to ascend into the cervical canal, and the effect of endocervical secretions on spermatozoa. Dead spermatozoa in the cervical canal are indicative of endocervical hostility; this usually results from an endocervicitis with a mucopurulent discharge that kills spermatozoa.

The Endocrine Survey: After one has examined the wife's genital organs for gross abnormalities, determined the status of the husband's spermatogenesis, investigated the patency of the cervix, uterus and fallopian tubes, checked on the delivery of semen to the cervix and the reception accorded spermatozoa by endocervical mucus, the final diagnostic step is an endocrine survey. It is chiefly concerned with the factors which control development of the uterus, function of the ovaries and response by the endometrium.

Healthy women of childbearing age, who menstruate normally and with some degree of regularity, probably also ovulate regularly. On the other hand, individuals without gross genital pathology, who either bleed continuously, are amenorrhoeic, or flow irregularly, infrequently and scantily, probably do not ovulate—such symptoms often result from abnormal function by the glands of internal secretion.

There is no direct method of proving that a woman ovulates. We must rely on presumptive evidence, namely, the histologic appearance of the endometrium at the onset of menstruation. Endometrial biopsies for this purpose are obtained with a suction curet, preferably within a few hours after the first show of menstrual blood. We may assume that a woman has ovulated if her endometrium shows the normal response to corpus luteum hormone stimulation. Such progesterone effects, known also as secretory or progestational responses, are recognized by hypertrophy of stroma cells, corkscrew hypertrophy of the uterine glands and secretory swelling of their lining epithelial cells, but especially by the marked development of spiral arteries so that they penetrate the compacta, or surface layer, of the endometrium.

Some women bleed fairly regularly from an endometrium which has undergone only the proliferative changes of estrogenic or follicular hormone stimulation. This phenomenon is called anovulatory menstruation. Others bleed more or less continuously; biopsies reveal hyperplasia of the endometrium; the ovaries are devoid of corpora lutea and these women are sterile. For women who fail to ovulate regularly, as well as for many others, additional diagnostic studies are desirable, viz., x-ray films of the sella turcica, basal metabolic rates, blood cholesterol determinations and sugar tolerance tests. Few clinicians have access to laboratories equipped to make assays for the various hormones, but no one knows the practical value of such assays after they have been made. Consequently, they can not be considered essential in the investigation of a barren marriage.

TREATMENT

The gynecologist's diagnostic survey is a painstaking search for every factor which might contribute to the barren marriage. His next obligation is a systematic elimination of all contributing causes found in the wife. He must not restrict treatment to a single major factor, while neglecting the minor, more trivial causes. Due consideration to these apparently nonessential conditions may account for the success of some clinicians, where others fail. Furthermore, the husband can not be absolved from responsibility until his semen is normal and spermatozoa are found in the vaginal vault after coitus.

The leucorrhoeal discharge from an inflamed vagina may be so hostile to spermatozoa, that they are killed before reaching the haven of friendly endocervical mucus. Many cases of vaginitis are instances of Trichomonas infestation. I have had more success with Floraquin insufflations and lactic acid douches in relieving this type of vaginitis, than with other methods of treatment.

The normal pH of the vagina varies from 4.0 to 4.5 and this degree of acidity is not favorable to longevity of spermatozoa. Some cases of infertility have been rectified by the simple expedient of an alkaline douche before intercourse. This insures a less hostile medium for spermatozoa in the vagina and is conducive to their longer life; thus they are given an opportunity to reach the cervix.

Vaginismus may result from psychic factors; often it is an aftermath of pain experienced during coitus. Painful intercourse may be caused by a rigid hymenal ring, by vaginitis, or by inflammation in the upper genital tract. Whatever its cause, vaginismus must be relieved—otherwise vaginal spasm will promptly evacuate all seminal fluid. Some of my most grateful patients are those for whom a perineotomy made intercourse a comfortable event.

Cervical stenosis can usually be overcome by office dilatations with graduated dilators; occasionally gas anesthetic is necessary. Scar tissue obstructions in the cervix must be dilated periodically because they tend to recur; consequently, the cervix should be dilated every three months until it is certain that the canal will remain adequately patent.

Chronic endocervicitis is characterized by a tenacious mucopurulent discharge that pours from the external os or plugs the canal. Furthermore, cervical polyps, nabothian cysts, cervical strictures and erosions on the pars vaginalis, are frequent aftermaths of an endocervicitis. All may also be contributing factors to infertility, either because they are the source of a discharge which is hostile to spermatozoa or by obstructing the cervical canal, they tend to perpetuate an endocervicitis. Strictures must be dilated and polyps should be removed, but nabothian cysts are of importance only when they encroach on the canal lumen. I prefer cautery treatment for chronic endocervicitis and use the nasal-tip cautery blade to make separated linear burns, that extend from the internal to the external os and are placed in the four quadrants of the canal. Neither diathermy treatments with a cylindrical electrode nor conization of the canal have impressed me favorably. The cautery can also be used to destroy some erosions. Others require amputation, preferably by a modification of the Schroeder technic which has been popularized by Dr. Arthur H. Curtis. However, the amputation must be at a low level; removal of too much cervix might be responsible for subsequent miscarriage or premature labor.

If, at the time of ovulation, the cervical mucus is so scant that one is unable to obtain a specimen for examination—it is probably also insufficient to materially aid the ascent of spermatozoa into the uterus. The midinterval administration of estrogens tends to increase the amount of mucus secreted by cervical glands.

Some gynecologists recommend repeated dilatations of the cervix to stimulate growth of a hypoplastic uterus; this is harmless therapy but I disapprove of intrauterine stem pessaries; they are foreign bodies and predispose to infection. There is no doubt that the administration of estrogens produces hypertrophy of the uterus, but the hormone must be given frequently and in large doses (50,000 International units). This is substitution therapy, it is not stimulating; consequently the uterine enlargement is only temporary; on the other hand, administering large amounts of an estrogen to an infertile woman has a theoretic disadvantage, it may inhibit ovulation.

If the uterus is freely movable, a retroflexion can usually be overcome by manual replacement; the anterior position is maintained by a suitable pessary.

The infertility of women with uterine fibroids is often dependent on associated pathology, not the fibroids themselves. Although I thoroughly approve of myomectomy, this operation is rarely an essential step in the management of a barren marriage.

If the history of scanty menstruation, the size of the uterus and the histologic evidence obtained from an endometrial biopsy, suggest that the endometrium is poorly developed and not favorable to the successful implantation of a fertilized egg, it can be made to grow more luxuriantly by substitution hormone therapy. This is accomplished with estrogens to prime the endometrium during the first half of the menstrual cycle, followed by generous doses of progesterone to supplement the action of the patients own corpus leteum.

When gas fails to pass through the fallopian tubes at three consecutive monthly Rubin Tests, I assume that they are closed by firm adhesions; consequently further tests are considered superfluous. However, Rubin Tests also have therapeutic value, as is attested by the large number of patients who became pregnant immediately after a tubal insufflation. Apparently moderate gas pressure sometimes straightens out tubal kinks and ruptures filmy adhesions.

If the patient with occluded tubes wishes to consider surgical relief, roentgengrams should be made after an intrauterine injection of lipiodal or similar radio-opaque substance. Such films determine the exact site of tubal obstructions. Those located at the fimbriated ends are most favorable for plastic operations designed to restore tubal patency. Obstructions near the uterus, or at the cornua, are almost hopeless.

After hysterosalpingography and the demonstration of a favorable type of obstruction, it is my practice to tell the couple that the likelihood of success from a plastic operation on the tubes, is not more than fifteen or twenty per cent; that I am willing to undertake the operation if both the husband and his wife insist, but I cannot urge it. No woman should be submitted to salpingostomy unless occluded tubes constitute the major cause for her barren marriage. Furthermore, one must be certain that the husband's semen is normal and that his genital tract is free from infection; it would be sad, indeed, if the opera-

tion were successful but the husband promptly re-infected his wife and her tubes were again sealed.

Irving Stein is enthusiastic about the surgical treatment of certain amenorrhoeic, sterile women who have large polycystic ovaries; he resects a generous portion of the ovarian cortex together with the follicular cysts. Few gynecologists share Stein's enthusiasm because polycystic ovaries are probably not the essential pathology responsible for these patients' symptoms. Furthermore, I never recommend ovarian resections except in cases of endometriosis. Scar tissue, adhesions and more follicular cysts are almost inevitable after the surgical trauma of resecting ovaries. However, Stein's reports merit attention; someday there may be occasion to follow his recommendations.

Pelvic endometriosis that produces symptoms is an indication for operation. I urge surgery for younger women whose chief complaint is sterility, not only to increase the likelihood of pregnancy but also to conserve the ovaries. The usual procedure in such patients is (1) excision of available endometriotic nodules from peritoneal surfaces; (2) resection of chocolate cysts and other areas of endometriosis from the ovaries, provided at least fifty per cent of the original healthy ovarian tissue can be spared and (3) replacement of the uterus into an anterior position. The technic originated by Dr. Arthur H. Curtis is recommended for the surgical correction of retrodisplacement; it consists of three steps, (a) suturing together the uterosacral ligaments, (b) a Baldy-Webster type of round ligament shortening and (c) advancement of the bladder reflection of peritoneum to its normal location on the fundus. Conservative operations for endometriosis are worthwhile; not a few of my patients, who were previously infertile, became pregnant after submitting to these surgical procedures.

The treatment of ovaries which fail to ovulate is highly unsatisfactory. Disturbances in ovarian function may result either from primary ovarian failure or from malfunction by the anterior lobe of the pituitary gland. There is great need for potent gonadotropic hormones in the treatment of women with sluggish, poorly developed, nonovulating ovaries. Thus far the pituitary preparations have proven almost worthless. Early communications predicted that pregnant mare's serum hormone would stimulate the normal development of Graafian follicles, produce ovulation and exercise a luteinizing effect on the ruptured follicle. At present these far-reaching claims for the equine gonadotrope are seriously doubted. Apparently it only rarely produces ovulation in human ovaries. Nevertheless, I occasionally use an equine gonadotrope in the first half of the menstrual cycle, hoping that it may induce ovulation; in the second half I may give an anterior pituitary-like luteinizing hormone to assist in the development of a corpus luteum.

I cannot recommend small, so-called stimulating doses of x-ray over the pituitary and ovaries as wise treatment for this group of patients. Several observers report great success, i.e., many pregnancies after such x-ray therapy, but I am afraid of it. X-rays are essentially destructive and there is reason to doubt that they ever exert a stimulating effect on normal tissues. Experience has shown that the dose of x-rays which temporarily inhibits ovarian function in one patient, may produce permanent atrophy of ovaries in another. Everyone realizes that prolonged exposure of a pregnant uterus to x-rays, has a disastrous effect on the fetus. Furthermore, I have been told that x-ray treatments to produce ovulation may have serious results, e.g., patients may become pregnant and the resulting infants will probably be healthy but the generations to follow, i.e., grandchildren of the women so treated, are likely to exhibit a high percentage of physical and mental defects. Especially is this true, when both grandmothers had been given x-ray treatments to induce ovulation.

General hygienic measures are extremely valuable adjuncts. By improving general health they tend, also, to improve ovarian function. Thyroid therapy is used frequently, in fact, whenever permissable; basal metabolism rates are obtained almost routinely; many of these patients are hypothyroid. Thyroid is unquestionably our most effective hormone in the relief of infertility. Foci of infection should be eradicated. A high-protein, low-carbohydrate diet and thyroid, are indicated for women who are overweight. Forced feedings, iron and a high vitamin intake are advisable for frail anemic undernourished individuals who are underweight. Regularity in habits, an adequate amount of sleep, avoidance of mental and physical fatigue, out-of-door exercise, and long vacations alone, are all beneficial. Vitamin D therapy is helpful but Vitamin E has only questionable value. Those interested in animal husbandry are convinced that Vitamin C deficiencies contribute to low fertility in domestic animals; probably this is also true for man.

Laymen have learned that women are most fertile midway in their menstrual cycles, i.e., that they are most likely to ovulate and hence to become pregnant, twelve to fourteen days before the expected onset of a menstrual period. However, this knowledge has certain disadvantages. Most men produce semen of the best quality when they have coitus infrequently, possibly once a week or three times a fortnight. Many couples are so intent on pregnancy that they have intercourse each night during the fertile period. Thus they create a state of relative

male sterility, at the time the wife is most fertile.

It would be remiss not to mention artificial insemination. Neither the laity nor the profession seems to appreciate the many ramifications of this term. A wife may be inseminated either with her husband's semen or with the semen from a donor. Furthermore, semen may be placed in the upper vagina on the cervix or it may be injected into the uterus. Using the husband's semen and placing it on the cervix is indicated when physical deformities or psychic disturbances prevent the completion of normal coitus. Injecting semen into the uterus is potentially dangerous; it may cause an upper genital infection. However, intrauterine insemination with the husband's semen might be countenanced if cervical hostility to spermatozoa could not be treated satisfactorily. I have always refused to inseminate women with donor semen; the moral, social and legal aspects of donor insemination make it highly objectionable.

CONCLUSIONS

(1) "Barren Marriage" is an appropriate term for the problem presented by a wife who fails to become pregnant.

(2) Either the husband or the wife may be responsible; usually both are partially at fault and both must be examined thoroughly.

(3) An adequate gynecologic survey of such cases is concerned with (a) the wife's general physical condition; (b) the status of her genital organs; (c) spermatogenesis; (d) delivery of semen to the cervix; (e) ascent of spermatozoa into the uterus; (f) patency of the fallopian tubes; (g) ovulation and (h) the ability of the endometrium to receive and nourish a fertilized egg.

(4) Gynecologists should be able to recognize deficiencies in seminal fluid; husbands should be referred to a urologist if their semen is not absolutely normal.

(5) Most barren marriages result from a multiplicity of factors; all must be systematically eliminated.

(6) One is likely to fail in the management of barren marriages unless he receives whole-hearted cooperation both from the husband and the wife; they must submit to the entire diagnostic study and both should follow-through with all indicated treatment for at least one year, before turning to adoption as the solution for their problem.

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THYMIC DEATH*

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The conception of "Thymic Death" is not new. It dates back to more than 300 years. The first authentic report was by the Swiss physician Felix Platter[1] who, in 1614, described the following case:

> "The son of Marcus Peresius five months of age, well nourished with no previous illness, suddenly died from difficult breathing. As the father had previously lost two sons from the same malady, and being desirous of knowing the cause, we opened the chest at his request. We found the gland in the region of the throat as a large protruding tumor one ounce in weight, spongy, fleshy and replete with veins. It compressed the great blood vessels and the trachea in this spot, in which manner I concluded the infant was then suffocated."

Chevalier Jackson[2] has by bronchoscopy actually demonstrated narrowing of the trachea from pressure by a large thymus. This observation proves that a large thymus may cause pressure symptoms. The only question is how often does it occur. From my own experience I feel that obstruction of the blood vessels and of the trachea caused by thymic enlargement other than by a neoplasm is extremely rare. The symptoms of dyspnea, cyanosis and stridor are not specific of thymic enlargement. They can be caused by a number of conditions and one has to be very careful before one attributes these symptoms to the thymus.

The painstaking anatomical studies of Hammar[3] in Sweden and of Boyd[4] in this country have changed completely our criteria of thymic enlargement. Considering the normal weight of the thymus we are faced with the fact that this organ responds rapidly to diseases and nutritional disturbances. Within from one to seven days of illness, there is a significant reduction in thymus weight, and inanition from any cause whatsoever reduces the weight of the thymus within three days to about one-third of that in a well nourished individual. Since most autopsies are made on persons who have died from a longer standing disease or who have lost some weight, standards computed from such cases represent patho-

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logically reduced weights; and what has been called an enlarged thymus, is in realty the normal thymus of the well nourished individual. By tabulating the thymus weights of persons who had died suddenly from accident, Hammar arrived to much higher standards than those found in textbooks. According to Hammar, the thymus has a weight of about thirteen grams at birth and increases to a weight of thirty-five grams at the age of puberty. After this time there occurs a rapid reduction of the bulk of parenchyma while the interstitial tissue changes more and more into fat tissue. However, in old age, parenchymatous tissue is still found, and the occurrence of mitoses in the reticulum cells and of small Hassal's corpuscles indicates that, even after sixty, the thymus is still functioning.

The thymus is made up of three distinct tissues: (1) the medulla which contains epithelial reticulum cells and Hassal's corpuscles, (2) the cortex which contains chiefly lymphocytes and (3) the supporting connective tissue. The cortex constitutes the largest portion of the thymus in the early years of life. After puberty connective tissue and fat tissue make up the greater part.

Scammon[5] showed that the size of the thymus, in health and in disease, corresponds to that of other lymphoid structures, i.e., lymph nodes, tonsils, adenoids, Payer's patches. The presence of a large thymus and hyperplastic lymphoid organs in young persons led Paltauf[6], in 1889, to the conception of a status thymico-lymphaticus. Paltauf believed that young people with this constitutional anomaly have a lowered resistance and may die suddenly from trivial causes such as bathing, serum injections, minor trauma and anesthesia. Advocates of this theory explain thymic death as caused by autointoxication due to a perverted secretion of the thymus.

What is the evidence of a hormone secretion of the thymus? There are no anatomical findings which would indicate a secretory activity of this organ. Hassal's corpuscles are hyaline, degenerative products of the epithelial reticulum and are hardly able to produce a hormone. Studies on the functional significance of the thymus have followed the same lines of experimentation as in the investigation of other endocrine organs, namely removal of the thymus and, on the other hand, feeding or injection of thymus extract.

The results of these animal experiments are highly contradictory and whatever knowledge has been gained by them concerning the function of the thymus, is not applicable in clinical medicine so far.

Rowntree[7] and co-workers found that in white rats, the injection of thymus extract resulted in an acceleration in growth and development of the offspring in successive generations. Thymus deficiency produced by removal of the thymus caused the opposite effect, namely a retardation in the rate of growth and development of the offspring. Thymus deficiency in the pullet has been shown to lead to the production of shell-less eggs.

Regarded in favor of an internal secretion of the thymus is the relationship between the thymus and other endocrine glands. At puberty the gonads undergo marked development, while the thymus undergoes marked regression. Castration causes persistence and hyperplasia of the thymus. Adrenalectomy causes a persistent enlargement of the thymus, while administration of large amounts of cortin causes marked involution of the thymus in the white rat.

Clinical and pathological observations are in accord with some of these experimental data. In 1907 Hedinger[8] found in autopsies of cases of Addison's disease that the thymus was very often enlarged. Wiesel[9] in 1913 observed that in cases of status thymico-lymphaticus the medulla of the suprarenal glands showed almost complete absence of chromaffin staining. The lowered resistance of individuals with thymico-lymphatic constitution is explained therefore by Morse[10], Marine[11] and others, not by a primary dysfunction of the thymus, but by a primary adrenal insufficiency which causes a hyperplasia of lymphoid structures. Many clinicans believe today that status thymico-lymphaticus has no existence as a pathological entity.

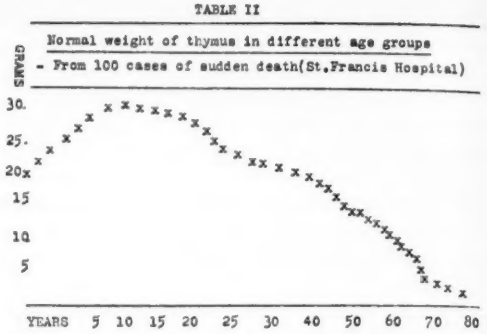
There is another disease in which a large thymus is almost always present, namely exophthalmic goiter. Rarely will a thymus weigh above sixty grams in an individual killed in an accident, while in exophthalmic goiter weights up to ninety grams are not unusual. In this disease, both the cortical and medullary substance of the thymus are hyperplastic, and again the question arises of whether the thymic enlargement is secondary to an excess secretion of the thyroid, or—as Warthin[12] believes, whether it is the expression of a constitutional anomaly which predisposes to the development of hyperthyroidism. Some surgeons advise to remove or radiate the enlarged thymus in toxic goiter, hoping that this will prevent a thyrotoxic crisis. The majority of pathologists regard the hyperplasia of the thymus in exophthalmic goiter as secondary to the hyperactivity of the thyroid, perhaps by way of the adrenal cortex which is found often atrophic in this disease. When complete autopsies including histological, bacteriological and chemical examinations are made, the diagnosis "Thymic Death" becomes less and less frequent. In most cases of sudden death careful postmortem examination will reveal a more reasonable cause of death than a large thymus. In more than

TABLE I
Causes of Death in Fifty Cases with Large Thymus

No.	Age	Sex	Thymus Weight	Cause of Death
1	Stillborn	m	20 grams	Hemorrhage in adrenals
2	Stillborn	f	22 grams	Atelectasis of lungs
3	Stillborn	m	21 grams	Syphilis
4	Stillborn	m	15 grams	Aspiration amniot. fluid
5	Stillborn	f	18 grams	Infarcts in placenta
6	Newborn	m	15 grams	Cerebral hemorrhage
7	Newborn	m	20 grams	Intracranial hemorrhage
8	Newborn	f	21 grams	Intracranial hemorrhage
9	24 hours	m	30 grams	Atelectasis of lungs
10	5 days	m	21 grams	Bronchopneumonia
11	8 days	m	25 grams	Influenza pneumonia
12	13 days	m	15 grams	Bronchopneumonia
13	1 month	m	20 grams	Bronchopneumonia
14	1½ month	m	21 grams	Bronchopneumonia
15	2 months	m	24 grams	Bronchopneumonia
16	3 months	m	30 grams	Bronchopneumonia
17	3 months	m	20 grams	Bronchopneumonia
18	4 months	m	38 grams	Bronchopneumonia
19	5 months	m	19 grams	Interstitial pneumonia
20	5 months	m	21 grams	Pulmonary stenosis.
21	8 months	f	15 grams	Retropharyng. abscess
22	10 months	m	21 grams	Bronchopneumonia
23	11 months	m	27 grams	Tracheotomy, Broncho-pneumonia
24	12 months	m	45 grams	Foreign body, trachea
25	15 months	f	20 grams	Pulmonary stenosis
26	20 months	f	19 grams	Anesthesia
27	20 months	m	25 grams	Bronchopneumonia
28	20 months	m	30 grams	Lymph. Leukemia
29	2 years	m	20 grams	Bronchopneumonia
30	2½ years	m	25 grams	Burns
31	2½ years	m	45 grams	Interstitial pneumonia
32	2½ years	m	21 grams	Bronchopneumonia
33	3 years	m	40 grams	Bronchopneumonia
34	3 years	m	15 grams	Tonsillitis
35	4 years	f	20 grams	Burns
36	4 years	m	28 grams	Bronchopneumonia
37	4 years	m	35 grams	Bronchopneumonia
38	5 years	m	40 grams	Glioma
39	5 years	m	42 grams	Pneumonia
40	7 years	m	20 grams	Bulbar Paralysis
41	9 years	f	25 grams	Anesthesia
42	10 years	m	30 grams	Skull fracture
43	10 years	f	21 grams	Bronchopneumonia
44	23 years	f	19 grams	Anesthesia
45	28 years	m	25 grams	Influenza pneumonia
46	31 years	f	29 grams	Pulmonary embolism
47	35 years	m	35 grams	Acute alcoholism
48	39 years	m	25 grams	Ac. Myocarditis
49	41 years	m	40 grams	Coronary occlusion
50	43 years	m	21 grams	Coronary occlusion

1500 autopsies which I performed at St. Francis Hospital, a large thymus has never been found as real cause of death. In Table I, fifty cases of sudden death are analyzed. While most of these cases had a large thymus, pathological changes in other organs gave a better explanation for the sudden death than a status thymico-lymphaticus. Sudden death during infancy and early childhood was caused very often by a fulminating respiratory infection. These cases were characterized by a vague preceding history, sudden death and at autopsy by interstitial pneumonia, petechial hemorrhages in pleura, pericardium and thymus. The bacteria that we found oftenest in the diseased lungs were streptococci. Probably many of these deaths were really due to filtrable viruses

TABLE II



and the streptococci were just beginning to appear as secondary invaders.

In many cases the gross autopsy changes were almost normal and only by microscopic and bacteriological studies was the true cause of sudden death discovered.

CONCLUSIONS

1. Our standards of normal thymus weights have to be corrected. What has been called an enlarged thymus in the past, is in realty the normal thymus of the well nourished individual.

2. There is no relation between the size of the thymus gland and sudden death. While it cannot be denied that thymic enlargement may produce symptoms of compression of the trachea, thymic death from mechanical causes, except in malignant thymoma, seems to be extremely rare.

3. An internal secretion of the thymus has never been definitely demonstrated. The experimental data concerning the function of the thymus are not yet applicable to clinical medicine.

4. The term status thymico-lymphaticus in the strict sense of Paltauf is not a pathological entity and may just as well be discarded.

5. There is no treatment of the thymus by injection of any extract, by radiation or by extirpation of the thymus which would have any effect upon preventing sudden death.

6. In most cases of sudden death, a complete autopsy including bacteriological and chemical studies will detect a more rational cause of death than an enlarged thymus.

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FULL TERM ABDOMINAL PREGNANCY WITH LIVING MOTHER AND CHILD

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Extrauterine pregnancy at full term with a normal living child is relatively so rare that I wish to report the following case:

At midnight of November 15, 1939, I was called to see Mrs. J. W., age thirty, para two, who had been in labor at this time since early morning. She was from a family of eleven children. Her childhood and early life had been normal except for an attack of anterior poliomyelitis at the age of fourteen months that had left a partial paralysis of the perinei and anterior tibial group of muscles of the right leg. Reconstructive orthopedic measures had enabled her to perform the ordinary duties of a housewife. Her first pregnancy and labor which occurred eleven years before, had resulted in a seven and one-half months premature child that weighed four pounds at birth. The baby survived and is now a healthy child. Menstruation had occurred at twenty-eight to thirty-three day intervals with duration of five days. Twice in the past ten years she had had a menorrhagia of thirty days, the cause being undetermined. For the past eight years she had used no contraceptives and had thought herself incapable of pregnancy.

January 20, 1939, she had what might be termed her last regular menstruation. February 20, she began to flow and accepted it as a regular menstruation. However, the blood contained clots and was darker and more "stringy" than usual. The flow without pain continued thirty days until March 18. Early on the morning of March 20, while extending her reach she was seized with a severe pain in the right lower abdomen that caused nausea, vomiting and confined her to bed. I was called in consultation that day by her physician who thought perhaps the patient had an attack of acute appendicitis. Appendicitis was ruled out and surgery deferred. Unfortunately no pelvic examination was done at this time. A few days later her physician made a pelvic examination and diagnosed pelvic inflammatory disease. The pain subsided sufficiently so that she not only cared for her own household, but worked at times for others. She was conscious of some enlargement in the lower abdomen and when fetal movements were felt on Decoration Day, May 30, 1939, she was treated as any other preobstetric patient except that she had much more pain than with her first pregnancy. The pains were greatly accentuated by the fetal movements. Except for relief from sedatives she spent a rather miserable gestation period from the time the fetal movements were felt until labor began on November 15, 1939.

Physical examination revealed a woman of the slender type of average health whose distress showed that her labor was not going well. She was having cramps at regular intervals without much relief between the intervals. Heart and lungs were negative. Fetal heart was heard distinctly two cm. to the right of the umbilicus. Position of baby was occiput anterior lying rather high above symphysis. Vaginal examination revealed a fairly rigid cervix that admitted one finger. The cervix was held anterior beneath the symphysis by a soft mass in the cul-de-sac.

The patient was given morphine grs. one-sixth and labor was allowed to continue under sedation until the evening of November 16, at which time another vaginal examination was made. At this time it was interesting to note that the cervix contracted on the examining finger at regular intervals. A diagnosis was made of occlusion of the lower uterine segment perhaps by a fibroid tumor and a Caesarean operation was immediately prepared for. At this time the laboratory report was sixty-seven hemoglobin and urine negative.

A transfusion of 500 c.c. of blood was given immediately before operation and donors were typed and prepared for another transfusion should an emergency arise.

At right paramedian incision six inches long was made. Immediately presenting itself beneath the incision was a large, dark colored, thick walled sac that seemed to fill most of the abdomen. The sac was ruptured and a six and three-quarter pound baby was extracted that shortly after had a healthy cry and seemed normal in every way. The placenta was large and had no attachment to the reproductive organs. It was attached to the mesentery of the small intestine, the transverse colon, descending colon and posterior parietal peritoneum. The hemorrhage which insued when a small portion of the placenta was dislolged frustrated any hopes of its removal. The cord was ligated close to the placenta and removed. All remnants of the sac were removed except the placental portion and the abdomen closed tight. Intravenous fluids during the operation and 500 c.c. of blood direct transfusion immediately after the operation sufficiently combated shock. The patient left the table in fair condition.

The post operative course was stormy but never alarming. Blood transfusions of 500 c.c. each were given during convalescence. Two weeks after operation subacute intestinal obstruction seemed gradually developing. Distention became marked and x-ray revealed gas free in the periotoneal cavity. Feeling that the gas might be decomposition products of the retained placenta and with oncoming obstruction on December 8, 1939, a low midline incision was made under general anesthesia.

When the abdomen was opened the transverse colon was found adherent over a large balloon shaped mass which was round, contained gas and was limited by adhesions on all sides. When the cavity was opened, gas literally roared out followed by a liter of bloody fluid (culture subsequently revealed the fluid to be sterile). One rubber tube drain was sutured into the "abscess" and one outside in the peritoneal cavity.

Three days after the second operation a fecal fistula developed which drained for three weeks and closed spontaneously. The patient left the hospital on the fifty-third day fully recovered. The baby was raised on cow's milk formula, was vigorous and weighed nine and one-half pounds, at this time. The retained placenta had a loud suffle which gradually diminished in intensity, disappearing completely in five weeks.

One year from date the mother reports she is in excellent health, and that the baby weighs twenty-

one pounds. She states that the baby started to walk and pronounce simple words at ten months.

It would hardly be fitting, though the time may be limited, to discuss extrauterine pregnancy without some allusion to its history. The early history of extrauterine pregnancy is chiefly the operative removal of long retained fetuses. The first recorded case is that of Albucasis[1], an Arabian physician living in Spain in the eleventh century. The famous Lithopedion of Sens in the early sixteenth century, Corvax case a few years later and Bains operation in 1540 for a long retained fetus, gives a clear picture of the early history of extrauterine pregnancy. From this time on operative removal of a petrified fetus has been relatively frequent.

Charles McKnight[2] about 1790 was the first American to do a laporatomy for abdominal pregnancy. He was the first to leave the placenta in situ and the patient recovered. John Bard removed a nine months fetus through the abdomen fifty years before McDowell did his ovarotomy. John King in 1816 operated on a patient with abdominal pregnancy per vagina. He opened the vaginal wall and delivered the child by forceps. He did not state how he handled the placenta but one must conclude he removed it. He did not close the vagina but kept the patient in bed with feet elevated for two weeks. At the end of four weeks no evidence of the vaginal incision remained and the uterus was normal. Both baby and mother recovered.

Hoffman[3] states that in 1935 Hellman and Simon, surveying the literature on full term intraabdominal pregnancy, collected 311 cases and added five cases making a total of 316 cases studied. One hundred and fifty-eight babies lived for a period of eight days or longer. Two hundred and twelve mothers lived, 101 died and the outcome of three unknown. In this series there were only eight cases[4] in which mother and baby survived. In 236 full term or near full term intraabdominal pregnancies discussed by Cornell and Lash, the diagnosis was correct in eighty-six and in sixty-seven there was no diagnosis.

Sittner's[5] statistics of cases of living children after extrauterine development showed that in a series of ninety-three cases, forty-five children died within a few months after birth from causes connected with their extrauterine development. Mundells[6] figures show that for each forty-one extrauterine living babies, eight will be deformed.

Obstetrical history is well punctuated with phenomenal events. Though intraabdominal full term pregnancy may be a biological wonder its occurrence is insignificant in comparison to the heroic role the placenta and fetus must play in order to develop retroperitoneally, three of which cases have been reported (Longley[7], Plewes[4]). Novak[20] summarizes the literature and reports 278 cases of combined pregnancy in which an intraabdominal and intrauterine pregnancy developed at the same time. Bondurant[8] reports a full term combined pregnancy delivered by laparotomy, the intraabdominal baby being strong and healthy and the intrauterine baby a weak syphilitic that died. One author[9] dilated the cervix, mistook the fundus for placenta previa, dashed his arm through it and delivered a full term intraabdominal pregnancy per vagina. Not to be outdone another obstetrician[9] states he mistook the vaginal vault for the cervix, pressed his arm through and delivered per vagina a seven pound intraabdominal pregnancy including placenta with survival of mother and baby.

The question as to whether or not a primary abdominal pregnancy ever exists is a debatable one because of the rarity of such reported cases. Competent authorities[10] have doubted that it ever occurs, although several cases appear to be well authenticated. Except for rare instances of ovarian pregnancy intraabdominal pregnancy is essentially an extruded tubal conception that has taken a new abode in the abdominal cavity without fetal death. The etiology is therefore that of tubal pregnancy.

The diagnosis of intraabdominal pregnancy is not always easy as shown by statistics. The difficulties are further enhanced if the baby is dead when the patient is first seen. McNeille[9] states that the physical signs are of less importance in the diagnosis than an accurate history. Physical signs vary greatly in different patients but as a rule the history has a rather definite set pattern.

Clinical History in Abdominal Pregnancy: With few exceptions intraabdominal pregnancies give a history of a missed period; the patient thinks she is pregnant. This is followed by intermittent bleeding and cramp like pains in the pelvis often associated with faintness. The patient as well as her physician now thinks she is having an abortion when in reality a tubal pregnancy is being extruded from the tube into the abdomen. Following this "the patient may have short intervals in which she is comparatively, but never wholly free from symptoms[9]." Nausea and vomiting will be more constant and fetal movements more painful than in normal pregnancy. The early history of intraabdominal pregnancy is essentially that of tubal abortion.

Clinical Signs of Intraabdominal Pregnancy: 1. The signs of pregnancy are present. The uterus enlarges up to two months about as in normal pregnancy. In advanced abdominal pregnancy the uterus may enlarge to the size of a four months pregnancy. The changes in the cervix in the first eight to ten weeks are the same as those in normal pregnancy.

2. Tender mass lateral to the uterus later occupying the whole lower abdomen.

3. During the third month the cervix begins to rise and is pushed forward so that its anterior lip may rest against the symphysis.

4. In the later months the baby may seem unduly close to the hand palpating the abdomen.

Treatment: The dangers of intraabdominal pregnancy are relative to the placenta. The chief causes for maternal mortality are hemorrhage, sepsis, and shock. Intestinal obstruction and bowel perforation though infrequent, do occur. Cornell[2] states that intestinal disturbances are very frequent and he believes the vomiting of blood and blood in the stools is due to intestinal erosion by chorionic villi.

There is a difference of opinion as to when one should operate for intraabdominal pregnancy. Dr. DeLee is of the opinion that operation should be performed as soon as the diagnosis is made. Others wait until just before term to intervene, while others wait until the fetus has been dead for some time, feeling that the placental circulation will have diminished sufficiently to forestall hemorrhage. Statistics of the comparative mortality of the cases operated upon before and after fetal death do not prove it is better to await the latter event. Literature speaks freely of the high incidence of sepsis in intraabdominal pregnancy without mention of the type of organism or its mode of entrance. Since it is the opinion of competent authority that chorionic villi do penetrate or erode intestines and bowel perforations do occur, one might assume that sepsis may start by way of chorionic villi penetrating intestine. Certainly a growing placenta attached to intestine is a dangerous anatomical arrangement and any delay in terminating such a potential hazzard will be at the risk of increased mortality.

In operating for intraabdominal pregnancy there are three well recognized methods of dealing with the placenta depending upon the conditions encountered.

1. If the placenta is not attached to vital organs and if the organs to which the placenta is attached such as the omentum, uterus, tubes or broad ligaments can be sacrificed, the organs along with the placenta are to be removed.

2. If the placenta is attached to vital organs uncomplicated with hemorrhage, remove the cord and membranes without disturbing the placenta. The question of drainage is left to the discretion of the surgeon. Statistics favor not draining.

3. If hemorrhage or sepsis or both are feared, the placenta is not disturbed. A marsupialization operation is done. The sac is sutured to the wound and packed tight with gauze after the manner of Mikulicz. Skinner[10] states patients thus treated run great risk from sepsis but it is the only thing that can be done when sepsis is already present or when there is bleeding that can be controlled only by tamponade.

SUMMARY

A case of full term intraabdominal pregnancy is reported in which a normal, healthy baby was delivered by Caesarean operation with the survival of mother and baby.

Intraabdominal pregnancy has been briefly discussed from the historical, diagnostic and treatment viewpoint.

It would not be fair to report this case without expressing my gratitude to Drs. A. C. Gulick and Paul Petit, who assisted with the operation and were consultants throughout the patient's convalescence.

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Poor health cuts into profits as much as anything else, and the employer should watch for the first symptoms of disease among his workers. Crusader.

There are approximately 150,000 blind persons in the United States, according to the 25th annual report of the National Society for the Prevention of Blindness.

RECOVERY FOLLOWING STREPTOCOCCIC SEPTICEMIA

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The field of chemo-therapy has recently given to the medical profession some valuable drugs for the treatment of infections. Probably a great majority of practicing physicians can off-hand recall a recent personal experience involving severe infection which responded promptly to one of these new agents. The following case is presented in order to place on record one more instance in which it seems entirely probable that a critically ill and doomed patient was rather quickly transformed to one of satisfactory convalescence.

The exact mechanism which these new drugs work their destruction on the bacteria is still a debatable question and I shall not discuss in this brief paper any of the theories regarding such questions. This paper shall be limited entirely to the details of a single case presentation.

CASE REPORT

The individual was a white, American male, retired mail carrier and sixty-six years of age. This individual has been remarkably free of any significant diseases, injuries or illnesses in the past.

His father died at the age of eighty-two and his mother at seventy-five, the definite causes of death not known. He has never had any brothers, however, there were seven sisters, three of whom have died. No significant diseases were present in the family history.

The patient had recently been undergoing some dental work and three days prior to my first seeing him, the dentist had extracted a left, lower, impacted, wisdom tooth. This extraction was somewhat difficult. However, the dentist told me that no significant difficulties were encountered. The tooth was not infected.

The evening following the extraction of this wisdom tooth, the patient was somewhat "knocked-out" but slept well that night. The next day he remained rather quiet, noticing some generalized aching and swelling in the region of the extraction. However, the dentist did not feel that it was anymore than what could be normally expected. It is possible that the patient had a slight fever on this day but the thermometer was not used.

The second day the patient seemed a little feverish and did not feel very good in general. There was probably a little more swelling in the left cheek and region of the extraction. He did not sleep well that second night because of more pronounced localized discomfort in spite of taking some pain tablets.

On the third morning following the extraction and following such a restless night, the patient felt quite "all-in," very feverish, and the swelling in his cheek had extended down into the left side of his neck. There had appeared a marked swelling of his cheek, throat and pharyngeal wall which made it difficult to swallow, in fact the patient felt as if there was some obstruction even to breathing. Within a few more hours he refused to drink water because fluid came out his nose and he tended to strangle easily with each attempt. His mind was not entirely clear. He was restless, anxious and presented a picture of severe toxemia.

At ten o'clock that morning he had a hard chill, lasting about twenty minutes, following which I was called to make my first examination. At that time his temperature was 105 degrees by mouth. A picture of marked toxemia could be recognized and the swelling of his cheek, neck and throat made me realize that a severe infectious process was present. Immediate hospitalization was advised.

EXAMINATION

The patient was a robust, somewhat over-weight, intelligent and cooperative white male, who did not

Date	Temp.	Pulse	Resp.	General Condition	Blood Culture	Neo-prt. Daily	Hb. Dare	R. B. C.	W.B.C.	PMN %	SM %	LM %	Urine
Nov. 16	105R 106	120	36	Delerious at times	Short chain hem. strep.	75 gr.	100	4,860,000	13,200	82	15	3	Tr. Alb.
17	99R 101	84	20	Oriented		50							
18	98M 101	72	18	Improved		40	94	4,550,000	17,400	86	14		Neg.
19	98 101	72	18	Stronger		40							
20	98 100	72	18	Some coughing		40	89	4,350,000	12,800	79	17	4	Neg.
21	98 100	72	24	More coughing		40							
22	98 100	78	24	Deep coughing		30							
23	98 99	78	24	Less coughing		30	82	4,180,000	13,600	77	21	2	Neg.
24	98	74	24	Improved		30							
25	98	72	18	Improved		30	80	4,060,000	11,800	72	26	2	Neg.
26	98	72	18	Few min. in chair		30							

Dismissed from hospital on tenth day. Neo-prontosil discontinued.

appear to be over sixty-six years of age. He was extremely restless, fidgety, with an anxious facies, and showing evidence at times of mental disorientation. The skin was dry and hot, pulse rapid, and respiratory rate increased.

There was quite a marked swelling over the entire left cheek but most pronounced anterior to the ear and extended beneath the angle of the jaw. This swelling continued beneath the left mandible and extended throughout most of the left neck. There was only moderate tenderness in the region of the angle of the jaw.

It was difficult for the patient to open his mouth widely and examination of the throat was difficult. It could be seen, however, that a marked swelling and edema was present in the left cheek, left pharynx, soft palate and extending down toward the epiglottis. The mucous membrane of this area was intensley injected. This seemed to center in the pharyngeal wall somewhat resembling a pari-tonsillar abscess. The gums and cheek were swollen, overlapping the site where the dental extraction had been done. A small amount of sero-purulent exudate could be seen in the dental wound.

The apparent rapidity in which this swelling and edema had developed made me feel considerably alarmed about a possible respiratory obstruction.

No significant findings were demonstrated on further physical examination. Laboratory work was ordered, an ice collar applied to left neck, codine sulphate grs. one-half given by hypodermic and neoprontosil therapy begun.

A smear from the gums proved the presence of numerous "trench mouth" organisms, so neo-slavarsan .4 gms. was administered intravenously a few hours after admission to the hospital. An alkaline antiseptic mouth wash was used every two hours. Small doses of codeine and acetylsalicylic acid were used during the two days.

Medication otherwise was entirely a matter of neoprontosil administration. This was begun orally in combination with sub-cutaneous injections, giving soda with each oral dose.

A summary of the points in question are set down here in table form.

A cough appeared on the fourth hospital day, previous to which the respiratory tract had been entirely free from any symptoms other than the threatening laryngeal obstruction as noted in history. This cough became quite severe on the fifth and sixth days and a complicating chest infection seemed very possible. Subsidence of the cough was prompt and recovery from this feature was as prompt as its appearance.

The remarkable clinical feature was the miraculous turn of events, and when the blood culture proved to be positive for a short chained, hemolytic streptococcus, it seemed even more remarkable that recovery had occurred with such promptness.

The patient remained in bed at home for eight days following his hospital dismissal. At times during this period his temperature reached ninety-nine degrees. Activity was not allowed until the patient had remained afebrile for three consecutive days.

He has since gradually resumed his normal activity and in general was feeling much stronger when last seen on December 13. On this last visit his blood count showed a satisfactory response to anti-anemic therapy.

SUMMARY

A case is presented which represented a sever streptococcus infection of the cheek, pharynx and neck. Blood culture was positive. Chemo-therapy appeared to be responsible for a prompt cure.

MANAGEMENT OF DENTAL PROGRAM FOR CHILDREN DURING GROWTH PERIOD

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WHY?—"But, doctor, they are just his baby teeth, why not pull them out when they become diseased?"

"My dear madam—baby or deciduous teeth are the only teeth the young child has. They are his permanent teeth for one-sixth of his lifetime. If they become diseased, ache and have to be pulled, the child often develops faulty eating habits. Ofen it is the cause for permanent teeth to come in crooked. In some cases it is the cause of failure of the jaws to develop normally. In many instances, it prevents the child from thoroughly chewing foods necessary for development during the period in his life when he is building the flesh and bone structures on which his life, health and happiness depend."

"Draining pus from abscessed baby teeth, diseased teeth and general mouth infection is often the cause of digestional upsets, fevers and abnormal psychological reactions. Mouth health and general health run hand in hand."

WHEN?—"Do children get their first permanent teeth?" "The first permanent tooth appears at the age of six. This tooth (the sixth year molar) is the first permanent molar. It comes in just behind the baby teeth. It does not replace a baby tooth. It is the most important tooth in the permanent set of teeth. At the age of seven decay has already started in more than half of them. At the age of nine, in some of these teeth, decay has reached the nerve (pulp), necessitating extraction. Ninety-two per cent of the first permanent molars decay between the ages of six and sixteen."

"Why is it so important to preserve the permanent teeth?" "It is not only a matter of health and appearance, but modern employers know that the condition of the mouth is a good index to the health of an individual. A modern employer knows that a young man, who has lost many teeth or has spongy diseased gums, is likely either to be negligent in his personal habits or to have some systemic disorder.

*Director, Division of Dental Hygiene, Kansas State Board of Health.

These findings often jeopardize his chance of getting a job."

"General Fairbanks states that thirty per cent of those disqualified for military service are because of crippled and diseased mouths. Dental defects rank first in the causes for rejection."

"A mailing clerk in our department had just completed his college course in Washburn University. The government held out special inducement to young men wishing to take up aeronautics. This young man had dreamed of being an air pilot all his life. He filled out the necessary forms and went to Ft. Riley to take the mental and physical examination. He passed the mental tests with ease. He passed all physical tests but one. He had lost three of his first permanent molars and had a couple of crooked teeth in his mouth. His crippled mouth condition, due to loss of important teeth, disqualified him from service in the air corps. He was a pathetic figure as he stood amid the ruins of his dream castle and said, 'For goodness sakes, why didn't someone tell us about these things?' "

"Large stores, such as Macy's in New York, will not permit anyone to work behind their counters who has physical defects that detract from his appearance or efficiency. All persons applying for positions are given rigid physical examinations. If their teeth are defective, they must be corrected before they are placed behind counters. If they have defective eyes, glasses must be procured and so it is in regard to all correctable physical defects. The store spends millions of dollars in order to display their merchandise in the most effective manner. The managers say that they cannot afford to place behind their counters persons who are negligent in matters of health and appearance."

HOW? "What measures can be adopted to prevent pain, infection and loss of teeth in children in schools or institutions wherein there are many children?"

"The institution of a well organized dental hygiene program will do much toward the accomplishment of these purposes."

"Dental hygiene embraces three phases—proper diet, regular personal care and dental care.

Proper diet—By this is meant to supply meals that incorporate all the necessary elements for growth and maintenance of the body, also, fresh air, sunshine, exercise and a happy state of mind.

Personal care—By this is meant to brush teeth regularly, morning and evening. Use small brushes with bristles wide apart. Hang up separately, preferably where the sunrays can strike them. Tooth paste, powder or a dentifrice composed of equal parts of salt and soda may be used.

Dental care—Provide annual (better semi-annual) dental inspection. Have defects found and corrected when they first start, in both temporary and permanent teeth. Have abscessed and badly diseased teeth removed or treated. Have children with a communicable disease (Vincent's infection) isolated and treated until the disease is cured.

The program should include children from the age of three to the time supervision ceases."

"It has been demonstrated that the correction of dental defects when they first start costs no more than the cost of extraction. Money spent for correction is a constructive endeavor, money spent for extraction is destructive and promotes the archiac practices of the dark ages."

The ravages of dental caries, the disease that rots the teeth and attacks ninety per cent of the people in this country, can be controlled by the intelligent use of dental facilities available in all sections in the state.

Literature and graded booklets on dental care for children are supplied gratis to state institutions and to schools by the Division of Dental Hygiene of the Kansas State Board of Health.

HISTORY OF BLOOD TRANSFUSIONS

Willard J. Kiser, M.D.

Wichita, Kansas

As a therapeutic agent, blood is as old as medicine itself.

The ancient Egyptian princes used blood baths for resuscitation and recuperation, and the custom of rushing into the arena and drinking the freshly flowing blood of dying victims prevailed among the Romans. The Egyptians, the Hebrews, and the Syrians are supposed to have practiced transfusions, and the Greek and Roman writers have been credited with witnessing it. However, as one reads this early history he is impressed with the obscure references and the vague and contradictory literature. This confusion is due apparently to the fact that during the Middle Ages the drinking of human blood was popularly considered a health restorative measure and in the older records the ingestion and transfusion of blood were frequently confused.

That a great controversy exists as to the date of the first transfusion of blood is quite evident. The writing of the Ancient Egyptians contains many references to the transfusion of blood, the works of Pliny and Celsus showing the condemnation of the procedure. The first transfusion of blood in the modern sense is said to have been attempted about 1490 at Rome, Pope Innocent VIII dying of senility,

being the recipient. A Jewish physician seems to have attempted it by transfusing him with the blood from three boys. In the test, reference as to what actually took place is not entirely clear, but the outcome seems to be apparent. Various versions seem to agree that the three boys died, the Pope died and the physician fled for his life after the failure of the experiment.

Zimmerman and Howell state that transfusion was mentioned in the fifteenth and early sixteenth centuries. Hieronymus Cordamus (1505-1576), and Pegiluis in 1593, mentioned the possibilities of transfusion of blood directly from one person to another. Andreas Libavius, who first advocated blood transfusions, described the technique similar to that used until recent times. Christopher Wren, an astronomer and architect, in 1656, injected medicaments into the veins of dogs by means of a bladder fastened to quills.

Richard Lohr, a physician in Oxford in 1665, transfused blood from one animal to another uniting the artery of one dog to the vein of the other dog by means of quills and silver tubes. The experiment was repeated before the Royal Society, from which point the news of these achievements spread and in the next year the first human transfusions were done in Paris by the philosopher and mathematician, Jean Baptiste Denis, and simultaneously by a disillusioned practitioner, Claude Tardi. While the experiments of Denis have been widely feted those of Tardi are recorded only in his own letters. Denis injected nine ounces of blood from the artery of a lamb into the veins of a youth who had had many venesections for an obscure fever.

Astounding improvement resulted. Denis performed his second successful transfusion giving ten ounces of blood from the femoral artery of a lamb. A third transfusion on a moribund patient was unsuccessful but the fourth fateful case brought a storm of criticism from the faculty of Medicine at Paris which brought obscurity to Denis and his favorite operation for a century and one-half. An insane patient was given two transfusion by Denis with some improvement from his mania. A severe reaction followed the second transfusion. A third transfusion undertaken at the request of the patient's wife was fatal. The enemies of Denis conspired with the widow to bring action against the transfuser on the charge of murder. There followed a long legal battle in which Denis was exonerated but was forced to leave Paris. Future transfusions were prohibited except by approval of the faculty of Medicine at Paris. Since the chiefs of the opposition were the faculty chiefs, this decree in effect prohibited transfusions.

Ten years later an edict abolished transfusions. Lohr and King in England in 1665, performed a human transfusion using sheeps blood which was well tolerated. In Germany and Italy similar experiments were performed but the Magistrates of Rome, following the French edict, forbade the giving of transfusions from animals to man.

Zimmerman and Howell note that among the cases in which transfusions were performed during this first period there were none of acute anemia. The operation was undertaken to cure constitutional disease, senility or insanity. With such poor selection of cases for transfusions reactions were severe and the incompatibility of blood was beginning to be recognized. For one hundred and fifty years the operation was abandoned except for occasionally reported cases. In 1792, Dr. Harwood performed several animal transfusions at Cambridge. In 1796, Erasmus Darwin, grandfather of Charles, advocated transfusion in cases of inadequate nutrition, but there is no record of his having performed the operation.

In general one may say that transfusion was advocated but little used from 1668 to 1835, because of inadequate methods of transfer of blood and the unsurmountable obstacle caused by coagulation of this vital fluid. In 1835, Bischoff attempted to overcome the obstacle of coagulation by defibrination. This left the blood saturated with fibrin ferment and added danger of intravenous clotting to those reactions now known as due to use of incompatible blood. It may, therefore, be concluded that from 1840 to 1900, because of the disastrous results, transfusions were not advocated except in extreme emergencies. In 1863, Blasius recorded 116 transfusions performed during the previous forty years with sixty-six successful results. In a comprehensive monograph Landois in 1875, brought the literature up to date and found that there had been 347 human transfusions and 129 cases in which animals blood was used.

In 1900, the beginning of a new chapter in blood transfusions was announced when Lansteiner announced his discovery of iso-hema-agglutinins and blood groups. With this discovery there appeared a means of rational selection of compatible donors for any given case. Landsteiner's three groups were later expanded to four and systematic measures for identification were devised by Jansky in 1907 and Moss in 1910. Additional groups have been advised by Vienna advocates but since iso-hema-agglutinins are lacking in these groups, their chief interest is apparently in heredity and medical-legal service. It is unfortunate that the Jansky and Moss classifications have reversed numbers for two of the four generally accepted groups of blood types.

With the fixation of the biological essays of blood groupings the technical methods for the transfer of blood were rapidly developed. Carrel, 1905, used arterial venous anastomosis as a method of transfusion. Crile, 1907, devised a simple arterio-venous canula which had its disadvantages but was a great advance in blood transfusion. Curtis and David's method advocated in 1911, used a paraffin coated glass receptacle, using a syringe for negative and positive pressure. Kimpton-Brown tubes which were a more convenient type of paraffin coated containers were recommended in 1913. Unger in 1915 devised a two syringe method which worked admirably.

One of the greatest single contributions in the history of blood transfusion was the demonstration by Lewisohn in 1914, that sodium citrate in quantities sufficient to prevent clotting was not toxic.

BLOOD BANKS AND PRESERVED BLOOD

In 1918, Robertson showed that citrated human blood can be bottled and preserved for as long as twenty-six days and be successfully transfused. The successful use of cadaveric blood by the Russians stimulated workers in the United States to find ways of preserving blood. Fantus and the Cook County Hospital conceived the blood banking idea which has now spread widely throughout the United States. Fantus stated that for successful operation of blood banks an average of six transfusions must be performed daily. He advised that blood be used within ten days.

McGowin studied problems connected with the preservation of blood. He found the best preservative mixture was blood ten parts, 5.4 per cent glucose thirteen parts, and 3.2 per cent sodium citrate two parts. The glucose prevented hemolysis. The potassium in the red blood cells diffused readily into plasma the first ten days, then an equilibrium was established. The PH changed from eight to seven in thirty-five days. The red cells retained ability to respire, fragility was little changed, prothrombin of plasma was not impaired at the end of fifteen days. Fantus stated that the incidence of reactions increased markedly after twelve days of preservation.

SPECIAL TYPES OF TRANSFUSIONS

1. Autotransfusion. This method is useful in cases of internal hemorrhage of uncontaminated blood. I have used it in cases of ruptured ectopic pregnancy and in spleenectomies. A large spleen holds 500 to 800 c.c. of blood which may be returned to the patient with great benefit.

2. Exsanguino-transfusion. Has been advocated in cases of large amounts of circulating toxins or bacterial infection in the blood stream which removal makes room for its replacement by fresh nontoxic blood containing fresh complement and possibly immune bodies present in normal adult blood. This procedure has been used most frequently in cases of septicemia and toxemia, in the treatment of severe burns and in various form of poisoning such as carbon monoxide poisoning.

3. Immunotransfusion. Given from donors who had been previously artificially immunized with either specific organism causing infection in the patient or with nonspecific vaccine. Favorable results are reported in the treatment of septicemia.

4. Irradiated Blood. Hancock and Knott in 1934, irradiated blood and then transfused. Each ten c.c. of blood was irradiated with ultra-violet light for thirty seconds. This must be considered a highly specialized form of transfusion and its benefits somewhat open to question.

5. Convalescent Blood. In the field of contagious diseases, convalescent blood often brings about rapid improvement with fall in temperature by crisis. This occurs with or without anemia. The immune body content of blood has been determined at various times but it has always been found to be less than the therapeutic sera which are on the market. However, in respect to safety and clinical response obtained, convalescent blood has certain advantages.

6. Transfusion of serum and plasma. The intravenous use of serum and plasma instead of whole blood is not new. The number of contributions on this subject is greatly increased in the last few years. As long ago as 1855, Buhl observed a number of burned patients and noted changes in those were the same as those produced in chlorea, that is, there was in both the concentration of blood with an increase in the concentration of the red blood cells and the extreme dryness of the skin and the mucous membrane.

In 1881, Pappeiner studied four badly burned patients as well as experimentally burned rabbits. Handicapped as he was by older analytic methods, his observations and conclusions proved to coincide with more recent ideas. Blood plasma has been found to be better than blood serum because it can be given without matching and does not cause reaction such as is found in giving of serum.

The plasma has been given in concentrated form to build up or sustain blood volume as in cases of acute shock or hemorrhage; to replenish deficiencies in blood protein as in cases of inadequate diet by mouth or in very ill patients having been given large amounts of intravenous fluids; for hypertonic effect in reducing edema; and in a miscellaneous group of cases, particularly, in the treatment of burns. In the burns when the process of blood plasma in the treatment of loss of large surface causes a great concentration of blood. The giving

of blood plasma has been found to work some rather miraculous results.

The recent development of a practical and inexpensive desication process solved the main problems of its use. First, storage difficulties practically cease to exist. Second, serum or plasma stored in the dry so-called lyophilic form will not support bacterial growth at any temperature. Third, all biological properties are preserved to a remarkable degree. The use of a desication process for the preservation of unused plasma from a blood bank makes a very useful addition to the services obtained from a blood bank.

The value of a special blood transfusion service using stored blood was brought out in the battle of France. The blood was taken from Universal donors and was flown out from England in pint bottles. Two weeks was regarded as a safe limit up to which the blood could be given and no ill effects were noted from using such stored blood. Plasma in fluid and dried form was on the point of being used at the time of the evacuation of France. This is now being used in war surgery.

In conclusion following such a brief review of the subject of blood transfusion, it is interesting to reflect that:

1. Only since 1920 has blood transfer from one person to another ceased to be a curiosity in hospitals.

2. Modern blood transfusion is a comparatively safe procedure. Practically all fatalities today can be attributed to failure to utilize the knowledge we now possess as regards blood transfer.

Brown rice, which goes through a less extensive milling process than white rice, contains four times as much vitamin B_1 and three times as much minerals as the white variety, Hygeia, The Health Magazine reports.

CARDIAC METASTASIS FROM CARCINOMA OF THE THYROID

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Carcinoma of the heart is usually metastatic and is not particularly rare. The probable reason why secondary cardiac growths do not occur more often in otherwise widely disseminated neoplasms is that the anatomy and the constant activity of the heart are such that tumor emboli are not so likely to lodge in this organ as in others.

Metastases to the heart from all of the main organs have been reported[1]. Many of these reports, however, deal with instances of one case only. The literature was carefully reviewed in 1936 by Jacobi and Seltzer[2] relative to cardiac metastasis from carcinoma of the thyroid and they were able to find twelve cases to which they added one. These authors stressed the fact that two types of cardiac involvement were found. One type is the rseult of direct extension from the thyroid veins by way of the vena cava, the right cardiac chamber being filled with thrombotic tumor material. This, they feel, should be called a neoplastic thrombus rather than a cardiac metastasis. The other type is truly metastatic in character. The veins do not contain gross tumor thrombi. Metastatic foci are widely separated and metastases in the heart are deep within the myocardium. Their own case, and eight of the twelve cases reviewed by these authors were of the latter type.

The following case belongs also to this type:

REPORT OF A CASE

The patient, C. H., a seventy-two year old white female, was admitted to William Newton Memorial

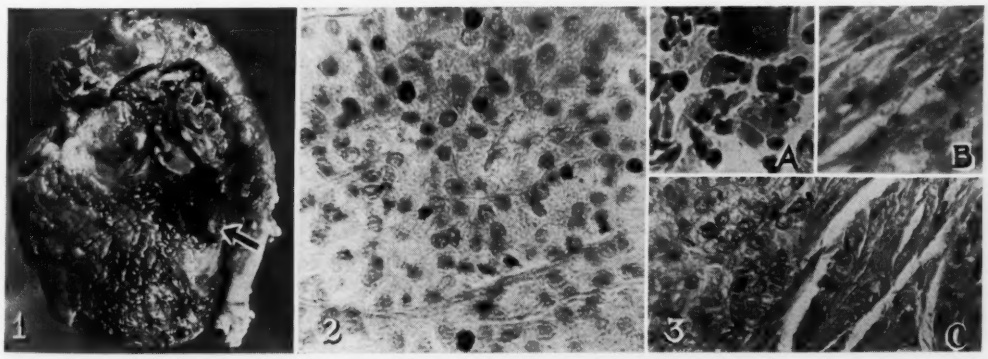

Figure 1. Metastatic nodules cover all surfaces of the heart and extend onto the aorta. Note the large nodule on the surface of the left ventricle (arrow). Figure 2. Section taken from encapsulated tumor removed in 1926. Hyperchromatic nuclei and mitotic figures are quite evident. Figure 3. Three sections from tumor removed in August, 1940, showing: (A) Anaplastic giant cells; (B) Spindle cells with sarcoma-like structure; (C) Epithelial characteristics similar to those of the tumor removed in 1937 except that there is invasion of muscle.

Hospital, November 10, 1940, complaining of choking sensation, shortness of breath, difficulty in swallowing, pain in the neck, cough with expectoration of blood tinged sputum, and weakness. Her past history revealed that she had had a subtotal thyroidectomy in 1927 for toxic goiter. At this time she had exophthalmus and other signs and symptoms of Grave's disease. The gland removed was adenomatous. A good recovery was made following the operation, including recession of the exophthalmus. She remained in good health until October, 1936, when a nodule developed in the mid-line in the old thyroidectomy scar. She complained of nervousness, fatigue, and tachycardia. Three months later a well encapsulated growth, four cms. in diameter, firmly adherent to the trachea and extending up between the ribbon muscles, was removed. This was considered a benign adenoma. (Fig. 2.) In June, 1940, the patient first noticed some difficulty in swallowing and the feeling that there was a lump in the throat. In a few weeks recurrence of the nodule in the neck was noted. Cough, nervousness, fatigue and recurrence of exophthalmus developed. In August, 1940, largely for the relief of dysphagia and respiratory obstruction, the tumor was resected (Fig. 3) and x-ray therapy instituted. There was prompt recurrence of the tumor but the patient remained ambulatory until the present admission (November 10, 1940). All symptoms became worse and after nine days the patient died.

Physical examination revealed an elderly obese woman who was dyspneic and apprehensive. There was marked exophthalmus and a large irregular tumor mass bulging in the suprasternal notch. The tumor was hard and fixed to both sides of the mid-line, but soft in the center. There was frequent expectoration of blood tinged sputum. Breath sounds were replaced by numerous crackling rales throughout both lungs. The heart sounds were not audible and the pulse was rapid and weak. There was no edema. No other findings of significance were made.

The observations at autopsy were as follows: The body was that of a moderately obese, seventy-two year old female. Considerable exophthalmus was present. The neck was enlarged, particularly on each side of the trachea where distinct induration could be felt. There were also two semi-fluctuant bluish colored nodules, measuring two and one-half centimeters in diameter, which protruded in the supra-sternal notch. In front of and on each side of the trachea, but not entering it, was a fleshy colored tumor mass adherent to the surrounding structures. It was hard in consistency with large areas of softening. There was no direct extension into the mediastinum. The pleural cavities each contained approximately 500 c.c. of bloody tinged fluid. Both lungs were studded with small nodules, a few of which were present on the parietal pleura posteriorly and laterally and large numbers were present on the diaphragmatic pleura. The lung on cut section showed extensive invasion throughout the parenchyma by neoplastic tissue. Many firm nodules were present in the mediastinum. The pericardial cavity contained thirty c.c. of pinkish colored fluid. There were no adhesions between the pericardial sac and the heart and the surfaces of the pericardial sac were smooth and glistening. The heart (Fig. 1) weighed 530 grams, was soft and flabby in consistency, and had a bright reddish brown color with a hob-nailed appearance due to extensive distribution over all surfaces of rather friable nodules which averaged approximately seven millimeters in diameter. These were less marked over the right atrium. There was a large protruding nodule on the anterior wall of the left ventricle which measured two centimeters in diameter. The chambers of the heart contained post mortem clots. The valves were normal. The myocardium of the right ventricle was almost entirely replaced by two large nodules, one measuring two and the other measuring two and one-half centimeters in diameter. Much fatty degeneration was evident beneath the epicardium. A small nodule, measuring one centimeter in diameter, was present near the apex and it extended into the intra-ventricular septum. It appeared to involve the endocardium. In the myocardium of the left ventrical was one large nodule measuring two and one-half centimeters in diameter extending through to the endocardium over which a small mural thrombus had formed. Much fatty degeneration was also evident here. Numerous small nodules around the periphery in the epicardial fat were present. Nodules on the atria were superficial. No gross invasion of the muscle was seen. Some of these nodules extended onto the arch of the aorta. Other structures of the heart were normal except that the foramen ovale was anatomically patent.

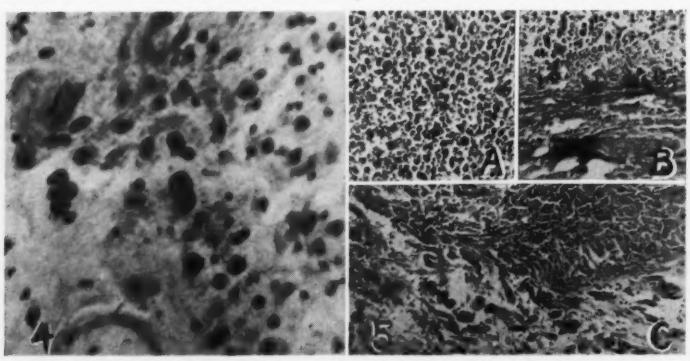

Figure 4. Section from the autopsy specimen. Hyperchromatic, multinucleated, and multilobulated giant cells varying in size and shape are numerous. The cell outlines are indistinct. Figure 5. (A) Section from one of the small nodules on the surface of the right ventricle. (B) Section from the left auricle. Tumor cells do not invade the muscle. (C) Section from the left ventricle showing invasion of the cardiac muscle.

The superior vena cava contained no tumor thrombi. There were neither tumor metastasis to any of the organs in the abdominal or pelvic cavities, nor pathologic processes pertinent to this presentation. Metastasis to the bones was not demonstrated. Microscopic sections of the tumor (Fig. 4) showed it to be a highly undifferentiated type of growth, the details of which will be discussed later. All nodules on the heart were neoplastic (Fig. 5A). Destruction of the myocardium by the tumor and the fatty degeneration which had occurred were so extensive that

little muscle tissue was left (Fig. 5B). In addition to the widely spread tumor growth in the lung, the alveoli were filled with polymorphonuclear leukocytes. Anatomical diagnosis: Carcinoma of the thyroid gland with metastasis to the heart, mediastinum, lungs and pleura. Broncho-pneumonia.

COMMENT

There are two interesting features relative to this case. First, one wonders how such extensive destruction of the myocardium can occur with so few changes in the function of the heart. It will be recalled that the patient was ambulatory until nine days before death. It has been shown that this is the rule (Yater[1]) unless the conducting system is involved[3]. Numerous explanations have been given for this phenomenon, but none seem quite satisfactory. However, the assumption that the slow development of the tumor may give time for compensatory changes, seems the most logical.

Second, this tumor is an example of a giant cell carcinoma which had been classified as a sarcoma or carcino-sarcoma until Clute and Smith[4,5], Herbel[6], Haagensen[7], and others were able to show the transition from the epithelial elements to the bizzare morphological changes which have occurred. The consensus is that sarcoma of the thyroid has yet to be proved. Ewing[8] says, "The occurrence of true sarcoma (of the thyroid) in man still requires demonstration."

This transition is shown particularly well in this tumor. In January 1937, a well encapsulated growth was removed which was thought to be a benign adenoma. Even though the capsule was entirely intact there is little doubt that this was already an adenocarcinoma (malignant adenoma), (Fig. 2.). There are cords and nests of epithelial cells with acinar formation but no colloid. Atypical mitotic figures are numerous. There is a tendency toward lobulation. Sections from the tumor removed in August, 1940, (Fig. 3.) show some fields almost identical with sections taken in 1937 except that there is invasion of the muscle. Other fields on the same specimen show spindle-cell formation and in places a combed appearance around the blood vessel so characteristic of sarcoma. Still other fields show a variety of cells of varying shapes and sizes set in a very delicate and scanty stroma. The structure is beginning to assume that of the autopsy specimen.

The outstanding and predominant feature of sections taken at autopsy (Fig. 4) is the extreme degree of anaplastic overgrowth. There is great variation in size, shape, and staining reaction with many bizarre formations. Many of the cells are multinucleated giant cells; often the nucleus is multilobulated and hyperchromatic. The cytoplasm is usually homogeneous and the cell outline indistinct. Vascular spaces are numerous and large. The microscopic picture of all metastatic lesions is entirely of this giant cell type of tumor. These tumors, as suggested by Lahey, Hare, and Warren[9], have a characteristic history. They occur more often in females over fifty, are usually rapidly growing, and arise from long standing adenoma of the thyroid.

By observing the microscopic progress of this neoplasm over a period of years, there can be little doubt of its epithelial origin and one necessarily concludes that this giant cell carcinoma is a highly anaplastic type of adeno-carcinoma.

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PSEUDOMUCINOUS CYSTADENOMA

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CASE REPORT

A married woman, age forty, was first seen by a physician in February, 1937. At that time she was complaining of fullness in her abdomen. Examination revealed a large pelvic mass and she was referred to the University of Kansas Hospital for treatment.

Patient before and after paracentesis are presented.

(Continued on Page 264)

President's Page

To the Members of The Kansas Medical Society:

Having returned from our national society where there are always contacts which stimulate one to greater effort in his chosen profession, one is always amazed at the progress made from year to year in the methods of recognition and treatment of disease.

Especially is this noted in the fields of chemo therapy and the vitamin deficiencies. One must also note the transition of transfusion methods from whole or citrated blood, available from suitable donors and stored in blood banks, to the latest dessicated and fluid plasma preparation, as yet expensive and almost prohibitive; but in the American streamlined way, means will be perfected making such advanced methods available to all.

For the information of Society members, the personnel of our various committees is being worked out and in the near future will be completed and announced through the proper channels.

I wish to express my appreciation to the members offering valuable suggestions and also to those responding for committee duty and may add not one to date has attempted to escape duty.

Let us enter into the new year of service with a determination to maintain the already advanced position of Kansas in medicine, and if at all possible, and "I believe it is," let us pioneer further and establish more guide posts that may be observed and followed.

Sincerely,

Clyde D. Blake MD

President, The Kansas Medical Society.

EDITORIAL

PHYSICAL FITNESS

The subject of physical fitness is to receive considerable attention as national defense develops and goes forward. According to figures thus far compiled a high percentage of the young men examined for selective service have been found deficient in one way or another. There is a legitimate medical interest in the causes which bring about maldevelopment. As the subject receives more official notice the extent of research and analysis may be expected to expand. This should be done upon a scientific basis with the end in view of conserving the health of the entire population.

While the study of the subject of physical fitness is essentially a medical problem, no worth while researches can be carried out without allied agencies necessary for large group investigations. The study must be begun among the early age groups, such as pre-school children, and be carried on through the entire public school system, into the universities, factories, stores and among the farm population. The physical examination of children in schools should be coorelated by a study of the background of the individual child. This will require medical social investigation. It is only through such a scientific approach that trustworthy observations can be made and conclusions drawn as to the causes of physical deficiencies and methods devised for their correction. A constantly operating follow-up system from the primary or first grade in school, under medical supervision, will be necessary to direct the physical development of children toward a maximum degree of fitness.

Many high schools, colleges and universities now have well organized physical education departments with trained personnel, and affiliated with physicians who act in an advisory capacity in cases of defective physical development. The scrutiny of any incoming class of college freshmen is convincing evidence of the need of beginning the study of physical development at a far earlier age.

The logical, and in fact the only available agency for the physical guidance of youth is the public school system, with advanced institutions of learning carrying on the program. In such an enterprise our present national conception of athletics, that of teams of champions competing with champions from other schools, must be changed to a program of athletics for all. That a few of the more highly physical students should get all of the athletic training is absurd. Diversification of athletic sports throughout our entire educational system and including the universities, should contribute greatly toward better physical development and better health.

The Physical guidance of growing children should be looked upon as a plan for the conservation of our most valuable national resource, our human resource. A scientific approach and an educational development is essential to the advancement of the physical well being of the nation.

HYPERTENSION

Hypertension still remains one of the unsolved problems of medicine. Its etiology is unknown, measures to influence its course are doubtfully efficacious. Its course is slow and gradual, but dreadfully persistent. Statistics from the great life insurance companies indicate that the mortality of individuals with hypertension is trebled over the normal death rate. It is a great source of disability after the age of fifty years. The termination is caused by failure or injury to the vascular beds of the heart, the kidneys or the brain, resulting in heart failure, nephritis or cerebral hemorrhage.

If these events occur in a short period of time rapidly culminating in dire consequences the course is "malignant"; if progress is slow with a long symptom-free stage it is classified as an "essential" type. Robinson and Brucer[1] found systolic hypertension four times as common, and diastolic hypertension seven times as common in the broad chests as in the linear types. Temperamentally the hypertensive individuals are extroverts clamoring for worlds to conquer, frequently capable of great accomplishments, at times having so many irons in the fire that none are effective. This display of energy has many features simulating hyperthyroidism. The clinical features suggest irritation of the organism. This un-

known factor "over a long period of time irritates the arterioles of a vulnerable individual[2]" resulting in hypertension. This illuminating (!) observation apparently summarizes the present state of our knowledge of this condition.

This impasse should not discourage our attempts to investigate the problem. In the very recent past, biologic discoveries have made epochal progress in the management of diabetes and nernicious anemia, and chemotherapy has conquered some fatal infections. So it seems that an effective approach may yet be found for the management of hypertension. Indeed the observations of Goldblatt that hypertension follows circulatory interference of the kidney, demonstrated pathologically and reproduced experimentally; the association of high blood pressure with pyelonephritis[3]; the favorable response to sympathectomy in selected cases, and the reduction of blood pressure by use of renal extracts[4] mark recent progress which may lead to a specific agent. Even the remedies already available have brought worthwhile results: modernation in living, proper diet, the favorable response frequently following weight reduction in the obese, sedation, vasodilatation by nitrites, sulphocyanates and purines. These factors warrant that the pessimism and gloom surrounding the diagnosis of hypertension may be replaced by an enlightened optimism.—From the Nebraska State Medical Journal, February, 1941.

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2. Stieglitz, E. J.: Stroud, Diagnosis and Treatment Cardio, Vas. Dis. F. A. Davis Company, Phila., 1940, p. 1,423.
3. Barker & Waters: J. A. M. A., 115:912.
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OFFICIAL PROCEEDINGS

FIRST REGULAR SESSION OF THE HOUSE OF DELEGATES

The first regular session of the House of Delegates was held at the Hotel Jayhawk in Topeka on Tuesday, May 13, 1914, commencing at 8:00 p.m.

Dr. F. L. Loveland, President, presided, and called the meeting to order.

Upon a motion by Dr. C. C. Nesselrode, Kansas City, the report of the Committee on Credentials, the roll call of delegates and the reading of the last minutes were dispensed with.

Explanation was made of the method of registering and seating delegates.

Dr. A. W. Fegtly, Wichita, was appointed sergeant-at-arms, and reported a quorum of the House present.

Dr. Loveland announced the appointment of the following reference committees and outlined the procedure for presentation and adoption of the reports of the reference committees: Reference Committee on Reports of Officers and Councilors—Dr. Philip W. Morgan, Emporia, Chairman, Dr. A. W. Fegtly, Wichita, and Dr. Earl L. Mills, Wichita; Reference Committee on Reports of Committees and Resolutions—Dr. John M. Porter,Concordia, Dr. E. L. Vermillion, Salina, Dr. F. C. Taggart, Topeka, and Dr. Robert Sohlberg, McPherson.

Dr. Morgan presented the following report on behalf of the Reference Committee on Reports of Officers and Councilors:

TO: THE HOUSE OF DELEGATES:

SECRETARY'S REPORT

The writer still feels that the interests of the Society will be best served by abandoning the precedent of re-electing officers with exception of the treasurer.

Defense efforts and legislative activities took precedence over nearly everything in the last year.

Your secretary talked on subjects of scientific medicine and various organization phases before the Medical Auxiliary, the Women's Field Army for the Control of Cancer and many county medical societies.

It is recommended that efforts be made to continue the meeting of the county society secretaries.

REPORT OF THE DEFENSE BOARD

The Defense Board reports a year in which there have been few cases of defense and none within the last six months.

It should be again repeated that only those members who have paid their dues are eligible for the services of this Board.

REPORT OF THE EDITORIAL BOARD

The Editorial Board represented by Dr. W. M. Mills reports on the period May 1, 1940, to May 1, 1941. The Journal is self sustaining and maintains a surplus over total running expenses. The Journal fund surplus was increased from $1,498.49 in 1940 to $1,582.18 in 1941. Increased expenses from heavier cover and instide stock and certain other additional features have been made during the past year. The Journal receives some 140 publications each month and sends them to the library of the University of Kansas Medical School. Over fifty books received this year for review were turned over to The Stormont Medical Library.

The Editorial Board believes a larger number of articles can be prepared by members for publication in the Journal and similar medical publications.

The Board asked for criticisms and was liberal in thanking all contributors.

Dr. Loveland voiced the appreciation of the House of Delegates to Dr. Mills and the Editorial Board for their work in editing and publishing the Journal.

REPORT OF THE EXECUTIVE SECRETARY

Mr. Munns' report is so concise and comprehensive that this committee feels it should be printed in its entirety and recommends careful study by each member of the Society; however, for the sake of brevity we have attempted to summarize it for presentation at this time. If we have passed over or have stated too briefly any points on which he wishes to elaborate, we wish him to feel free to make additional remarks. The report begins with a resume of some sixty bills introduced at the last session of the Legislature pertaining to public health and medical care together with the disposition made of them. The complete list was sent to each county society to be read in open meeting. A complete report may be had from this source or from the report to be published in the Journal.

Medical preparedness has also been a major activity of the Society the past year. Kansas plans have operated efficiently and have received favorable comment from the War Department. Worthy and favorable comment was a low percentage of physical examination rejections by the Induction Boards.

Ninety-five per cent of Kansas physicians have returned their American Medical Association questionnaires. It is hoped that the remaining per cent may be completed shortly.

Another questionnaire to be carried out through the county societies shortly will be information relative to the number of physicians in the several communities who can and cannot be spared for military duty.

Adjutant General McLean, Major Montgomery, Director of Selective Service in Kansas, and Lieutenant Colonel Seth A. Hammell, Medical Director, have cooperated to the fullest extent in the preparation and operation of the selective service program for Kansas. They have approved almost every suggestion the medical profession has made and have made possible a number of arrangements to be adopted to the advantage of physicians donating their services which would otherwise have been almost impossible.

Progress has been made on the subject of indigent medical care. Many societies have adopted free choice plans for that purpose and others have extended and improved present plans.

The Kansas State Board of Social Welfare issued last May a procedure which greatly simplified matters incidental to financial participation in indigent plans. Efforts are being made to pursuade the Federal Government to coincide its regulations for financial participation with the practical ones adopted by the Kansas State Board of Social Welfare. The Kansas State Board of Social Welfare is considering the possibility of employing a full-time consultant on indigent medical care who would be available to assist the various counties and county medical societies in the adoption and operation of plans for that purpose.

Post-graduate activities has continued along similar lines as in recent years. State-wide courses on cancer and tuberculosis have been held, and similar courses are being planned on several other subjects. A five-day course on heart disease was held in Emporia in October and a technicians seminar was held in Topeka in December. The Kansas Obstetric and Gynecological Society and the Kansas Heart Association were organized and are working with marked advantage to those interested.

The passage of an enabling act for group hospitalization by the Legislature will permit experimental work in this direction within the next few years. This is thought to be especially advantageous to industrial areas but may also be of value to numbers of persons in other walks of life. It is presumed that the Society will cooperate in this and render all assistance possible for successful ventures.

The Society has attempted to maintain close liason relationship with the Board of Social Welfare, the Board of Administration, the Board of Health, the Commission of Revenue and Taxation, the Division of Labor and Industry, the Industrial Development Commission, the Governor's office, the Attorney General's office, The Kansas Work's Project Administration, the Kansas State Hospital Association, the Kansas Pharmaceutical Association, the Kansas State Dental Association, the Kansas Conference of Social Work, the Kansas Veterinary Medical Association, the Kansas Association for the Prevention of Blindness, the Kansas County Commissioner Association, the Kansas State Nursing Association and various other agencies and organizations interested in public health and medical care, and efforts have been made to acquaint these agencies with the services the medical profession is able to offer.

The Kansas State Board of Health has cooperated with the Society in all ways possible and its program has been of great assistance in all fields pertaining to public health. Its pneumonia control program was improved and extended during the past year, incubators were placed in a number of additional hospitals, financial assistance was provided for the programs of Society committees, an exhibit truck and additional full-time personnel were obtained to provide more extensive participation in lay-educational activities, full-time health units were established in several additional counties, plans were made for participation in public health activities incident to the national defense program and various other programs were commenced and completed. Through the assistance of Mr. William E. Scott, the attorney member of the Board, considerable legislation of public health importance was obtained in the past session of the Legislature. The State is fortunate in having personnel of the type now serving as members of the Kansas State Board of Health.

The activities and projects of the various committees are mentioned but since these are reviewed by the other reference committee they will not be detailed here except to say that the central office has been fully cooperative and has been of great assistance to the committees.

There has been full cooperation with the Kansas State Board of Health, The Kansas State Board of Medical Registration, the Women's Auxiliary, the Women's Field Army, and the new organization recently formed, the Kansas Medical Assistants Society.

Two members of the Society have been honored by election to national presidencies during the past year. Dr. J. L. Lattimore was elected as President of American Society of Clinical Pathology, and Dr. F. L. Loveland as President of the National Conference on Medical Service.

New county medical societies have been chartered in Chase and Morris counties during the year.

Resignations of two councilors were received: Dr. A. C. Armitage resigned as councilor of the eleventh district and Dr. G. W. Hammel as councilor of the ninth district on account of removal from the district and state.

The membership in the Society has not materially changed during recent years. The present membership is 1372.

Expenditures for the past year have been divided as follows:

The General Fund—$13,401.15. This includes salaries, travel, other meetings, committee expenses, legal expenses, state meeting and general office expense. The defense fund —$884.37. The Special Fund—$2,076.92. A total of all expenses $16,362.44.

The Journal has continued to operate in good financial condition. It pays its own expenses including one full-time assistant in the central office. Much credit is due to Dr. W. M. Mills, Dr. L. E. Eckles, Dr. L. R. Pyle, Dr. R. B. Stewart, and Dr. D. N. Wakeman for their management and supervision of the publication. That they spend a considerable portion of their time in that regard without any form of compensation should entitle them to the appreciation of the entire membership.

The following paragraphs are directly quoted from the executive secretary's report:

"The central office personnel has consisted during the past year of Miss Joyce Ryerson, Mrs. Mateel Todd, and the writer. Miss Ryerson and Mrs. Todd have worked earnestly and efficiently in all matters in which the Society is interested and have made many contributions to the organization of the central office. The Council has made available the employment of additional part-time assistance whenever necessary.

In conclusion we would like to pay tribute to the excellent administration of Dr. Loveland. His year was filled with many difficult problems and duties and those who worked with him know that he placed the Society foremost amongst his activities during that time. Hours were spent each working day in the central office and he gave almost full time service during the session of the Legislature. His counsel, advice, and wide acquaintance and his excellent ability were responsible for many of the accomplishments during his term. We greatly enjoyed working with him and feel that every member agrees that he has been a particularly capable and efficient President. Tribute should likewise be paid to the other officers, councilors, committees, and members who have attended meetings and given freely of their time and money and in many other ways contributed to the welfare and progress of the Society."

Mr. Munns closes by expressing his appreciation of his good fortune in being associated with the medical profession. He has felt the work a crusade instead of a job. Excellent and unselfish attention for public benefit make it possible for programs to succeed and for one to have the philosophy that any loss in medical experiences simply means that the opponents are in error. Mr. Munns expresses regret for any mistakes made and expresses appreciation for the numerous courtesies and memories given him.

COUNCILOR REPORTS

First District—J. W. Randell, M.D.

Ninety per cent of the doctors of medicine are members of the societies.

Second District—O. W. Davidson, M.D.

During the past year military preparedness and medical legislation were matters of first importance.

Third District—L. D. Johnson, M.D.

Four District—J. L. Lattimore, M.D.

Fifth District—M. Truehart, M.D.

Sixth District—W. P. Callahan, M.D.

All reported a satisfactory year.

Seventh District—F. R. Croson, M.D.

In Washington County 452 children were immunized for diphtheria by cooperation between the Kansas State Board of Health, the Washington County Medical Society, and the county commissioners. Jewell County Medical Society likes its second year of Farm Security Administration. Riley County Medical Society honored Dr. J. D. Colt, Sr., Dr. W. H. Clarkson, and Dr. W. M. Reitzel for forty years service in that society. A full time county health unit was also approved by that county. Clay County Medical Society sponsored a crippled children's clinic.

Eighth District—L. S. Nelson, M.D.

Being better informed enabled the members of this district to have fewer mistakes than in previous years. In facing contract practice problems it is suggested the county societies, rather than individuals, consider them to avoid the silent entrance of commercial competition into the picture. Constructive criticism was repeatedly mentioned as having virtue in the societies.

Ninth District—Haddon Peck, M.D.

"Generally speaking the Farm Security Administration plan for medical care has not been satisfactory, to doctor or patient, and a few doctors of the district have refused to continue it for the second year."

Tenth District—C. D. Blake, M.D., relieved by Otto A. Hennerich, M.D.

Everything reported satisfactory.

Eleventh District—A. C. Armitage, M.D.

Everything reported satisfactory.

Twelfth District—Geo. O. Speirs, M.D.

"It has been voted to continue the Farm Security Administration medical plan another year with broader service and increased payment per family. There are several towns in this district without phvsicians, but with the distribution of hospitals and good roads we do not feel there is lack of good medical care."

This reference committee directs attention to the fact that many councilor district made no mention of the status of Farm Security Administration plans, or the number of men in military service, or deaths, or percentage of physicians belonging to societies, or other factual matter which such reports might include. Most of the reports mentioned cooperation in legislative and community activities which is commendable. This committee begs to suggest that each councilor's report hereafter have some few questions to answer so that it may thereby be a means of comparing situations as they exist over the State. It is obvious that hitherto no such plan has existed.

Respectfully submitted,
REFERENCE COMMITTEE ON REPORTS OF OFFICERS AND COUNCILORS
Dr. Philip W. Morgan, Emporia, Chairman
Dr. Earl L. Mills, Wichita
Dr. A. W. Fegtly, Wichita

The report of the Reference Committee on Reports of Officers and Councilors was presented for adoption by sections. All sections and recommendations in the report were adopted.

Upon a motion made by Dr. Morgan, and carried, the report of the Reference Committee on Reports of Officers and Councilors was adopted as a whole.

Dr. Geo. M. Gray, Kansas City, then presented the report of the Treasurer. Following Dr. Gray's report Mr. Munns gave an itemized report of the expenditures during the past year. Dr. Gray explained more in detail the work of the Journal, and commended the Editorial Board for its excellent work. Upon a motion by Dr. J. F. Gsell, Wichita, and carried, the report of the treasurer was accepted.

Dr. Porter, Chairman of the Reference Committee on Reports of Committees and Resolutions, then presented the following report which had been prepared by that committee:

TO: THE HOUSE OF DELEGATES:

THE COMMITTEE ON AUXILIARY

Reports an increase in membership and several new counties organized. They have concentrated this year on reaching the public by means of public relations teas, cancer control through the Women's Field Army, encouragement of vaccination and the further use of Hygeia by the laity.

THE COMMITTEE ON CONTROL OF CANCER

This committee has placed its entire emphasis on lay and professional education and has had excellent success. In reaching the laity there has been more than the usual number of public meetings with use of sound motion pictures, film strips, and speakers from numerous sources. The work this year was concentrated on malignancy of the breast and uterus. In the matter of professional education, the cancer section has appeared regularly in the Journal, an exhibit of cancer control in Kansas at the meeting of the American Medical Association has been planned, and one meeting on cancer control has been recommended for each county society yearly. A postgraduate course was held at a number of points throughout the state but the attendance by the profession was somewhat disappointing.

THE COMMITTEE ON CHILD WELFARE

This committee has made a survey of the state in regard to respirators and in some instances has encouraged purchase of new ones by civic clubs. They have served as consultants to the State Board of Health in various ways and have assisted in establishing child health demonstration in field training in four Western Kansas counties.

THE COMMITTEE ON CONSTITUTION AND RULES

This committee reports no amendments to the constitution to be considered at this session. They recommend a further trial of the present review committees for reports of officers and constitutional committees. If this plan as utilized in 1940 and 1941, meets with the approval of the Society, it should be incorporated in the constitution and by-laws. They further report that a booklet will soon be available to the membership, containing the original charter and the present constitution and by-laws.

Dr. Fegtly, chairman of the committee on constitution and by-laws reported orally that the following additional suggestions have been made by the committee in order that the officers, delegates and members of the Society may seriously consider and later express to the central office or to the committee their opinion on two important matters which might in the spirit of democracy be an improvement in the work of the Society:

1. The limitation of the number of consecutive years which a member may serve on any given committee.

2. The limitation of the number of consecutive terms which a member may serve as delegate to the American Medical Association.

He also reported that the committee feels both of these matters are debatable but that it believes it would be interesting to note the reaction to these suggestions.

THE COMMITTEE ON ENDOWMENT

This committee advocates an enlargement of our field of activities to secure wherever possible, funds for research, surveys, scholarships, and similar activities as well as direct endowment. They have co-operated with the University of Kansas Endowment Association in securing legal services and in making certain mailing lists available. They offer this help and that of their own committee to anyone who is interested.

THE COMMITTEE ON CONSERVATION OF EYESIGHT

This committee reports considerable detailed and technical work in cooperation with the State Board of Social Welfare on promotion of the State eye program. They recommend that the section in the Journal on eye, ear, nose, and throat, be continued, and have planned a survey regarding postgraduate work in this field. They recommend that the delegates from the Kansas Medical Society to the American Medical Association take action against a contemplated resolution pertaining to inadequately trained eye practitioners.

THE COMMITTEE ON STUDY OF HEART DISEASE

This committee offers a file of talks on this subject to county medical societies on request and calls attention to their exhibits at the Wichita and Topeka meetings. They aim to serve as a relay station in the activities of the American Heart Association. They have also made a census of electrocardiac equipment in the state and are continuing studies of the causes of death from heart disease in Kansas. Instead of stimulating lay interest in heart disease for the general public they advocate very strong "sedation" on this subject. Outstanding activity for the year was the five-day postgraduate course held in Emporia in October, 1940. Plans are already under way for a similar meeting in the fall of 1941. They emphasize that all members of the Society are welcome to take part in their activities whether they are members of the Kansas Heart Association or not.

THE COMMITTEE ON HOSPITAL SURVEY

This committee has continued to cooperate with the Kansas Hospital Association in legislative plans, and in a survey of Kansas hospitals and intends to carry out a survey of hospital equipment in the near future. They are also making a study of group hospitalization plans in cooperation with the Kansas Hospital Association.

THE COMMITTEE ON MATERNAL WELFARE

The Committee on Maternal Welfare has had an active year including the organization of the Kansas Obstetric and Gynecology Society, which, they hope will serve to assist in many ways. They have put in the hands of every doctor in the State, a brochure on the minimal standards of obstetrical care and are planning similar studies on the hospital conduct of obstetrical cases. They have also done some work regarding mothers training classes, exhibits at state meetings, and report that through assistance of the Kansas State Board of Health an incubator is now available in each county of the State. As an evidence of their activity in cooperation with the profession and the State Board of Health, they report the lowest maternal mortality in the history of the state—3.4 maternal deaths per thousand live births.

THE COMMITTEE ON MEDICAL ECONOMICS

This committee reports activity throughout the year. They plan to continue the study of the problems of indigent medical care, group hospitalization plans, prepayment plans for medical care and to hold conferences with various farm and labor groups.

THE COMMITTEE ON PHARMACY

This committee has been somewhat inactive and the chairman recommends that it be continued as a temporary committee, rather than given permanent status under the constitution. The major apparent need is for laws regarding pure food and drugs and regulations concerning barbiturates.

THE COMMITTEE ON PUBLIC POLICY

The Committee on Public Policy reports a successful year.

THE COMMITTEE ON SCIENTIFIC WORK

This committee reports assistance to the Shawnee County Medical Society for the state meeting, particularly in the selection of in-state speakers. Various minor activities have included papers for the Journal, the obtaining of a few out-of-state speakers for meetings, exhibits at the state meeting, and some efforts to promote scientific work in the county societies and to improve correlation and planning of postgraduate courses. The bulletins formerly included with the Board of Health News Letter, have been temporarily discontinued. It has been impossible to make any adequate reports on scientific progress to the membership, and the committee would welcome any suggestions as to how this might be furthered since many of our members receive no scientific journals whatever other than the Journal of The Kansas Medical Society. A subcommittee took a small part in seeing that an apparently useless uniform narcotics act was defeated in the last session of the Legislature.

THE COMMITTEE ON MEDICAL SCHOOLS

This committee again emphasizes the crowded conditions at the medical school, particularly in the pre-clinical years at Lawrence, and points out that over 600 applications for admission were received last year. They have helped in securing legislative appropriations for the school and are happy to report that steady improvement has been made in the school in many respects, including adequate library service, limitation of out-patient treatment to truly indigent persons, and a commendable postgraduate educational plan. It feels also that improvement has occurred in the use of the school by Kansas members. A detailed report from Dean Wahl was published in the May issue of the Journal showing that in the past year it was necessary to reject seven fully qualified Kansas applicants for admission to the school. Dean Wahl has also listed therein a number of bequests and donations received by the school.

THE COMMITTEE ON CONTROL OF TUBERCULOSIS

This committee again emphasizes the urgent need for enlargement of sanatorium facilities in the State. Some help has been indicated through action of the Legislature, the University of Kansas School of Medicine and the Kansas Tuberculosis and Health Association for the future, but the problem still remains acute. They commend Dr. C. F. Taylor of the Norton Sanitorium for the continued high standards of work which are maintained at that institution, and also the Tuberculosis Division of the Kansas State Board of Health under the direction of Dr. F. C. Beelman for its constantly increasing activities in the prevention of tuberculosis. Study of the silicosis and tuberculosis problem in Southeastern Kansas continues.

THE COMMITTEE ON LOCATIONS

This committee, organized during the past year, has made some progress in helping to solve a very important problem, made worse during the recent months by the demands of military preparedness. The committee has attempted to approach the problem from two points of view; namely, that of furnishing locations for men desiring them and also furnishing medical service for communities requesting medical services. Some thirty physicians have been placed in the state in the past year. Various plans are under consideration at present for many definite ways to meet this situation.

THE COMMITTEE ON HISTORY

This committee summarizes the many activities of the past year involving the very successful plans for military preparedness which have brought compliments from Washington and various military authorities. The long legislative session saw approximately sixty bills and resolutions introduced which pertained in some measure to public health and medicine. The defeat of the osteopathic and naturopathic proposals and the passage of an enabling act for group hospitalization were of major interest in that regard. Much work continued along lines of medical economics, public health measures, indigent medical care, etc., but defense activities took precedence over all of these. New committees appointed during the year consisted of a Committee on Medical Preparedness and a Committee on Locations. The Kansas Obstetric and Gynecological Society and the Kansas Heart Association were organized during the year. Another outstanding event was the action of the United States Circuit Court of Appeals in holding that Kansas osteopaths are not permitted to receive federal narcotic permits. They call to attention with regret the loss of one of our outstanding members, a past President of the Society, and its delegate to the American Medical Association, Dr. H. L. Snyder of Winfield.

THE COMMITTEE ON PREPAREDNESS

The Committee on Medical Preparedness, which is the Society's newest, has necessarily had a busy year. Recent activities have continued in an effort to obtain the last small percentage of individual questionnaires of the membership regarding military availability which have not as yet been received, and further action is contemplated in this regard. The committee recommends to the House of Delegates that a committee of three, including the medical examiner, be appointed for each county selective service board in the state. The purpose of such a committee would be to cooperate in efforts to secure exemption or deferment of bona fide medical students, and to assist in similar matters of medical interest. The committee further emphasizes the need for protection of medical service in the communities as defense activities take more and more men from local practice.

THE COMMITTEE ON VENEREAL DISEASE

This committee reports the establishment of two new venereal disease clinics during the year, and emphasizes that these clinics are established only upon application of the local county medical society which organization also is asked to select the local director.

The matter of prenuptial physical examinations which came before the recent session of the Legislature was also considered by the committee.

No reports were received from the Committee on Automobile Accidents and the Stormont Medical Library.

The Committee on Public Health and Education reported

a relatively inactive year with nothing of importance or of a controversial nature encountered.

Respectfully submitted,
REFERENCE COMMITTEE ON REPORTS OF COMMITTEES AND RESOLUTIONS
Dr. John M. Porter, Concordia, Chairman
Dr. E. L. Vermillion, Salina
Dr. F. C. Taggart, Topeka
Dr. Robert Sohlberg, McPherson

The above report of the Reference Committee on Reports of Committees and Resolutions was presented for adoption by sections. All sections and recommendations in the report were approved for adoption.

Upon a motion made by Dr. Porter, and carried, the report of the Reference Committee on Reports of Committees and Resolutions was then adopted as a whole.

Discussion followed concerning violations of the Medical Practice Act in this state.

Upon a motion made by Dr. C. C. Nesselrode of Kansas City, seconded and carried, the Council was empowered to provide additional personnel in the central office.

Lt. Col. S. A. Hammel, Medical Director for Kansas Selective Service, presented information concerning examination of selective service registrants in this state. Dr. Loveland expressed on behalf of the Society its appreciation for the excellent cooperation and assistance the Kansas Selective Service System has furnished the medical profession on this subject.

The Council was requested to consider and to prepare plans for the filling of vacancies occasioned by the use of private physicians in the military forces.

Adjournment followed.

SECOND REGULAR SESSION OF THE HOUSE OF DELEGATES

May 15, 1941—4:00 p.m.

The second regular meeting of the House of Delegates was called to order by Dr. F. L. Loveland, President, at the Municipal Auditorium at Topeka on Thursday, May 15, 1941, at 4:00 p.m.

Dr. Philip W. Morgan, Emporia, Chairman of the Reference Committee on Reports of Officers and Councilors reported that the committee had no additional reports to present.

Dr. John M. Porter, Concordia, Chairman of the Reference Committee on Committee Reports and Resolutions, stated the committee returns to the House of Delegates herewith the resolution presented by the delegates from Marshall County Medical Society with the recommendation that it be referred to the Council for consideration. Upon motion by Dr. Porter, and carried, the recommendation of the Reference Committee on Committee Reports and Resolutions was adopted.

The next items of business was the annual election of officers and councilors:

Dr. Henry N. Tihen of Wichita was elected President-Elect for 1941-42, and as President for 1942-43; Dr. John L. Lattimore of Topeka was elected First Vice-President for 1941-42; Dr. M. Trueheart of Sterling was elected Second Vice-President for 1941-42; Dr. John M. Porter of Concordia was re-elected as Secretary for 1941-42; and Dr. Geo. M. Gray of Kansas City was re-elected Treasurer for 1941-42.

Dr. Philip W. Morgan of Emporia was elected as Councilor of the Fourth District for a term of three years; Dr. John L. Grove of Newton was elected as Councilor of the Fifth District for a term of three years; Dr. J. H. A. Peck of St. Francis was re-elected as Councilor of the Ninth District for a term of three years; and Dr. Herbert Atkins of Pratt was elected as Councilor of the Eleventh District for a term of three years.

Dr. F. L. Loveland of Topeka was elected as delegate to the American Medical Association for 1941, and as delegate-elect for 1942 and 1943.

Upon a motion by Dr. Karl A. Menninger of Topeka, and carried, the expenses of the two delegates, the incoming President, and the executive secretary to the 1941 meeting of the American Medical Association were authorized to be paid by the Society.

Dr. E. L. Vermillion of Salina stated he was authorized to extend an invitation for the Society to hold its 1942 meeting in Salina.

Dr. Howard E. Snyder of Winfield stated that the Cowley County Medical Society would like very much to be host to the meeting in Wichita in 1942, along with any other counties which might like to assist in that regard.

Dr. A. P. Gearhart of Wichita stated the Sedgwick County Medical Society would be glad to serve as host of the meeting or as co-host with surrounding counties if the House of Delegates so desires.

Dr. Herbert Atkins of Pratt offered the services of the Pratt County Medical Society as co-host for the 1942 meeting.

Dr. Howard E. Snyder of Winfield, then made a motion that the 1942 annual session be held in Wichita, and that the Cowley County Medical Society, in conjunction with any other county medical societies which desire to participate, be designated as host for that meeting.

Dr. Henry N. Tihen of Wichita, offered a substitute motion that the 1942 annual session be held in Wichita, that the Sedgwick County Medical So-

ciety accept the services and assistance of the Cowley County Medical Society and any other county societies which desire to assist as co-hosts, and that plans in this connection be referred to the Council for final approval. The substitute motion was adopted.

Discussion followed concerning the proper and most advisable time for holding the last meeting of the House of Delegates at each annual session. Dr. John L. Lattimore of Topeka, stated that this year's arrangement of holding that meeting during the late afternoon of the last day had been attempted as an experiment and that possibly further improvement could be made by arranging to hold the meeting at noon of the last day. Discussion followed, and the consensus was that this year's plan had operated satisfactorily.

Dr. J. F. Hassig of Kansas City, Secretary of the Kansas State Board of Medical Registration and Examination, discussed the work of that board and its appreciation for the assistance of the profession in the handling of its problems and activities.

Dr. C. D. Blake of Hays was then installed as President for 1941-42. Dr. Blake expressed to the Shawnee County Medical Society the appreciation of the Society for a most successful meeting, and its thanks for the efforts of that society in making the meeting a success.

Adjournment followed.

PSEUDOMUCINOUS CYSTADENOMA

(Continued from Page 255)

Laparotomy was performed in April, 1937, and a tumor mass with numerous peritoneal implants found. It was surgically impossible to remove the growths and the patient was given a bad prognosis and sent home. Pathological examination at that time revealed the tumor to be a pseudomucinous cystadenoma which is in itself a benign tumor.

The patient got along fairly well and she came under my care approximately three months after returning home. At this time it seemed necessary to perform an abdominal paracentesis to relieve the distention and accompaning pain. Eight quarts of straw-colored and some gelatinous fluid were obtained. This was repeated one month later and gradually the interval between paracenteses became shorter until the last few months when it became necessary to drain her abdomen about every two weeks. The amount of fluid obtained varied from eight to ten quarts and the character of the fluid changed from fairly liquid to a thick mucinous fluid which had to be aspirated through a tonsil suction handle with the tip removed. During the final year of her life, the patient was drained twenty-two times and altogether thirty-three times and the total amount of fluid obtained was seventy-three gallons.

The patient died on July 5, 1940, and permission for a limited autopsy was granted.

The body was extremely emaciated and abdomen distended. In the incisional scar, there was a growth which was quite cellular and which had been shown to be malignant by a biopsy taken several months before her death. The abdominal cavity was filled with fluid, mucinous in character and all the abdominal viscera matted together by the tumor growth. Numerous apparently complete intestional obstruction were noted. The liver and diaphragm were displaced upwards. The peritoneum was studded with small growths all of which contained mucinous material. None of the abdominal organs showed any infiltration through the peritoneum and no metastases were found on sectioning. Death was caused by intestinal obstruction.

Pathological examination revealed mucoid carcinoma of the section removed from the incisional scar and pseudomucinous cystadenoma of the ovary with peritoneal implants.

This case illustrates the possibility of a malignancy in a secondary implant even though the primary tumor is microscopically benign. It also illustrates how a perfectly benign tumor, pathologically speaking, may be malignant from a clinical point of view in that it may produce either tremendous pressure from fluid accumulation or interference with vital organs, as in this case, intestinal obstruction.

NEWS NOTES

BILLS IN CONGRESS

Information has been received concerning two bills of unusual interest presently pending in Congress.

One of these is H.R. 4476 which seeks to authorize the employment of interns in the Army, and which was amended by the House of Representatives Committee on Military Affairs to include osteopaths in addition to graduates of recognized medical schools. The other bill is H.R. 4965 which includes appropriations for certain military activities during the fiscal year ending June 30, 1942, and which was amended on the floor of the House of Representatives to authorize the use of osteopaths in the Army.

H.R. 4476 has not as yet been acted upon by the House. H.R. 4965, however, as above indicated, was passed by the House in the amended form and is now pending in the Senate Committee on Appropriations.

MEDICAL PREPAREDNESS

The American Medical Association questionnaires pertaining to physicians who are available and not available for military service was forwarded to the presidents of the county medical societies on June 3. It is planned that the questionnaire replies will be assembled and forwarded to the American Medical Association as a unit by the Society central office during the present month. The questionnaire, as was described in the May issue of the Journal, contains questions concerning the following information: Actual number of physicians now engaged on a full-time basis in Hospitals, Related Institutions, Health Departments and Medical Schools. Actual number of physicians now engaged

on a full-time basis in industry. Actual number of physicians now engaged in Private Practice. Actual number of physicians who are retired or not in practice. Number of physicians who are deemed essential for the medical staffs of hospitals, related Institutions, Health Departments and Medical Schools (if any). Number of physicians who are needed for full-time industrial practice, and for the care of the civilian population.

Ninety-five per cent of the Kansas doctors of medicine have forwarded their individual questionnaires to the American Medical Association. This, therefore, leaves only ninety questionnaires to be obtained in this state. The Society Committee on Medical Preparedness urgently requests that every physician who has not as yet completed his individual questionnaire do so immediately.

A bulletin was also recently forwarded to the county medical societies suggesting that they assist medical students who desire to obtain temporary deferment from military duty pending completion of their medical training. The Kansas Selective Service System has also forwarded information to the county selective service boards that it will be possible to defer medical students on the basis of continuing six months periods for this purpose.

NARCOTIC PERMITS

The attention of members is called to the fact that Federal narcotic permits expire each June 30th. Renewal of permits must be made before July 1, in order to avoid a penalty fee. Renewal in this state should be filed with the office of the Collector of Internal Revenue at Wichita, or at one of the district offices.

A.M.A. MEETING

The Ninety-second Annual Session of the American Medical Association was held in Cleveland, Ohio, on June 2 to 6, 1941.

The total registration at the meeting was 7,269. Kansas members who attended were as follows: Drs. L. G. Allen of Kansas City, W. H. Algie of Kansas City, H. O. Anderson of Wichita, A. L. Ashmore of Wichita, L. F. Barney of Kansas City, C. E. Bates of Leavenworth, C. D. Blake of Hays, M. A. Brawley of Frankfort, H. J. Brown of Winfield, Harlin Crank of Topeka, Foster Dennis of Dodge City, Cora E. Dyck of Moundridge, E. S. Edgerton of Wichita, C. W. Erickson of Pittsburg, W. T. Elnen of Wichita, H. M. Floersch of Kansas City, T. L. Foster of Osawatomie, Arthur Gray of Topeka, J. F. Hassig of Kansas City, O. M. Heiberg of Manhattan, C. A. Hellwig of Wichita, Fred P. Helm of Topeka, H. R. Hodson of Wichita, C. B. Johnson of Eudora, L. E. Johnson of Wichita, Irene A. Koeneke of Halstead, B. W. Lafene of Marysville, J. L. Lattimore of Topeka, Frank Lenski of Iola, F. L. Loveland of Topeka, Ray Meidinger of Highland, S. Murdock of Sabetha, C. C. Nesselrode of Kansas City, L. R. Pyle of Topeka, M. E. Pusitz of Topeka, Ernest Seydell of Wichita, Leo A. Smith of Topeka, Howard E. Snyder of Winfild, C. F. Taylor of Norton, L. M. Tomlinson of Harveyville, Claude C. Tucker of Wichita, Harold H. Woods of Topeka, and James A. Wheeler of Newton.

Dr. Frank H. Lahey of Boston, Massachusetts, was installed as President for the year 1941-42 and Dr. Fred W. Rankin of Lexington, Kentucky, was elected as President-Elect. Other officers elected were as follows: Dr. Herman L. Kretschmer of Chicago as Treasurer, Dr. Olin West of Chicago as Secretary and General Manager, Dr. Charles W. Roberts of Atlanta, Georgia, and Dr. Ernest E. Irons of Chicago, as members of the Board of Trustees.

The scientific exhibits and the technical exhibits were among the largest in the history of the Association and the scientific sessions were complete in their usual manner.

The foremost actions taken by the House of Delegates were: that the case of the United States Government versus the American Medical Association et al should be appealed to the highest courts in an effort to clarify this important matter; that a Commitee on Pan-American relations should be established and that official representatives of the Pan-American countries be invited to attend the 1942 session; that the work of the Committee on Medical Preparedness continue in its efforts to meet the needs of the military and civilian agencies for medical service; that the Council on Medical Education and Hospitals attempt to work out plans wherein the activities of the various specialty certifying boards may more adequately coincide with the needs and best interests of the profession; that consideration be given by the Board of Trustees to the possibility of establishing a section on general practice in the scientific sessions of the American Medical Association; and several resolutions pertaining to the preservation of anesthesiology, radiology, pathology and physical medicine as specialties of medical practice.

Since the American Medical Association selects its place of meeting three years in advance, St. Louis was selected for the 1944 meeting. The 1942 meeting will be held at Atlantic City, and the 1943 meeting at San Francisco.

Activities of interest at the meeting pertaining to Kansas physicians were as follows: Dr. J. L. Lattimore of Topeka was installed as President of the American Society of Clinical Pathology; Dr. L. R. Pyle of Topeka and Dr. C. W. Erickson of Pittsburg, respectively took examinations given by the American Board of Obstetrics and the American Board of Internal Medicine, and were made diplomates of those Boards; Dr. Arthur Gray of Topeka presented a paper on the organization and operation of venereal disease clinics, at a meeting of the Neisserian Society; Dr. Howard E. Snyder of Winfield and Mr. Benjamin Lowther of the Kansas State Board of Health presented an exhibit on cancer control in this state; Dr. H. O. Anderson of Wichita presented a demonstration on fractures at the scientific exhibits section; Dr. Ernest Seydell of Wichita discussed the relationship of tonsillectomies to poliomyelitis before the section on Eye, Ear, Nose and Throat; and Dr. E. S. Egerton of Wichita placed among the leading scorers in the American Medical Association golf tournament.

WOMEN'S FIELD ARMY

The Executive Committee of the Kansas Women's Field Army for Control of Cancer held its annual meeting in Topeka on June 8. The members of the committee in attendance were: Dr. Howard E. Snyder of Winfield, Dr. C. C. Nesselrode of Kansas City, Dr. Lewis G. Allen of Kansas City, Dr. Marion Trueheart of Sterling, Dr. C. D. Blake of Hays, Dr. H. R. Ross of Topeka, Mrs. Donald Muir of Anthony, Miss Georgiana Smurthwaite of Manhattan, and Mrs. Ada Montgomery of Topeka.

Activities of the organization during the past year were reported and plans for the next year were prepared.

Major actions taken were as follows: Appreciation was expressed to the Kansas State Board of Health for its assistance in the Kansas cancer program; that an effort be made to

present speakers on cancer at the state meetings of all lay organizations; that an effort also be made thru the Kansas State Department of Education to have each high school in the state schedule a convocation talk on cancer during the next year; that the radio, newspaper and other publicity campaigns and the program of lay-meetings be continued as in the past; that district training schools and a state training school for Women's Field Army representatives be planned; that pamphlets on cancer continue to be distributed; and that intensive efforts be made to increase the membership of the Women's Field Army.

PRIZES

The following are the winners of prizes at the annual golf and trap shooting tournaments held in connection with the 82nd Annual Session in Topeka on May 12:

GOLF

Dr. Cecil Snyder, Winfield—Mead Johnson Trophy.
Dr. G. L. Ashley, Emporia—Merrell & Company Trophy.
Dr. W. K. Hobart, Topeka—Nordstrum Trophy and Quinton-Duffen Trophy.
Dr. Paul Trimble, Emporia—H. G. Fisher Trophy.
Dr. J. L. Lattimore, Topeka—Case of Pet Milk, Pet Milk Company.
Dr. G. L. Ashley, Emporia—Set of Club Helmets, W. S. Merrell Company.
Dr. J. V. VanCleve, Wichita—Six golf balls, W. S. Merrell Company.
Dr. H. P. Jones, Lawrence—Hypodermic Pocket Case, Burroughs Wellcome & Company.
Dr. E. M. Sutton, Salina—Interval Timer, Lattimore Laboratories.
Dr. B. I. Krehbiel, Topeka—Sport Glasses, Barnett & Ramel Optical Co.
Dr. M. B. Miller, Topeka—First Aid Kit, Johnson & Johnson.
Dr. J. W. Shaw, Wichita—Reno County Golf Bag.
Dr. L. G. Allen, Kansas City—Twelve golf balls, C. B. Fleet Company.
Dr. L. S. Nelson, Salina—Cool-Ray Glasses, American Optical Company.
Dr. E. G. Padfield, Salina—Diagnostic Set, A. S. Aloe Company.
Dr. Cecil Snyder, Winfield—Twelve golf balls, Borden & Company.
Dr. W. K. Hobart, Topeka—Twelve golf balls, Gerber Products Company.
Dr. C. M. Fitzpatrick, Salina—Three golf balls, Shawnee County Medical Society.
Dr. H. A. West, Yates Center—Three golf balls, Shawnee County Medical Society.
Dr. C. F. Taylor, Norton—Physicians Kit, Upjohn Company.
Dr. H. T. Jones, Lawrence—"International Medicine" by Musser, Lea & Febiger Company.
Dr. R. P. Knight, Topeka—Mennens Toilet Set, Mennen Company.
Dr. George Gsell, Wichita—Zipper Ophthalmic ointment case, Abbott Laboratories.
Dr. E. H. Decker, Topeka—Dietene, Dietene Company.
Dr. E. F. DeVilbiss, Kansas City—Gem Safety Razor, A. S. R. Corporation.
Dr. George Gsell, Wichita—Prize.
Dr. H. E. Neptune, Salina—Safety Razor, A. S. R. Corporation.
Dr. A. P. Cloyes, El Dorado—Surgeons Laboratory Apron, Holland-Rantos Company.

SKEET

Dr. R. E. Cheney, Salina—Mead Johnson Trophy.
Dr. R. E. Cheney, Salina—Electric Clock, W. E. Isle Company.
Dr. F. L. Loveland, Topeka—Biolite Intra-Red Lamp, McIntosh Electrical Corp.
Dr. Murray Eddy, Hays—One dozen Becton Dickson Hypo Syringes, Goetze Niemer Company.
Dr. H. T. Jones, Lawrence—Trophy, Saline County.
Dr. H. J. Davis, Topeka—Jacket, Pratt County Medical Society.
Dr. G. C. Bates, Independence—Shooting Jacket, Pratt County Medical Society.
Dr. E. L. Vermillion, Salina—Willsonite Sport Goggles, Barnett & Ramel Optical Company.
Dr. R. C. Jeffries, Atchison—Two packages of Kit Suture Assortments, Davis & Geck Company.
Dr. W. E. Stone, Norton—Two packages of Kit Suture Assortments, Davis & Geck Company.
Dr. G. C. Bates, Independence—Trophy, Saline County Medical Society.
Dr. Edward Smiley, Junction City—Cool-Ray Sunglasses, American Optical Company.
Dr. Howard E. Snyder, Winfield—Agfa Ansco Camera, Agfa Ansco Camera Company.
Dr. C. D. Bell, Pittsburg—Pyrex Sterilizing Container, Parker, White & Heyl, Inc. (Bard-Parker).
Dr. H. E. Haskins, Kingman—Jacket, Pratt County Medical Society.
Dr. W. H. Weidling, Topeka—Jacket, Pratt County Medical Society.
Dr. C. D. Blake, Hays—Men's Fitted Leather Case, Luzier's, Inc.
Dr. George Seitz, Salina—Men's Fitted Case, E. R. Squibb & Son.
Dr. C. V. Minnick, Wakefield—Gem Safety Razor, A. S. R. Corporation.
Dr. C. F. Taylor, Norton—Carton of Phillip Morris, Phillip Morris Co.

The following officers of the Kansas Medical Golf and Trapshooting Association were elected to serve for the coming year: Dr. Grover G. Whitley of Douglas as President; Dr. G. L. Ashley of Emporia as Vice-President, and Dr. Paul Trimble of Emporia as Secretary.

Prizes were given by several county medical societies. Pratt County Medical Society and Saline County Medical Society each gave money with which to purchase additional prizes.

SECRETARIES CONFERENCE

The Secretaries Conference which was held in Topeka on May 14 in connection with the annual session was attended by the following members: Drs. L. L. Wenke of Great Bend, M. W. Woodhull of Cottonwood Falls, W. H. Iliff of Baxter Springs, Cleo D. Bell of Pittsburg, Daniel Peterson of Herington, D. R. Davis of Dodge City, M. E. Kaiser of Ottawa, L. S. Steadman of Junction City, C. W. Inge of Formoso, H. E. Haskins of Kingman, H. J. Stacey of Leavenworth, A. M. Lorentz of McPherson, Thomas T. Meyers of Marysville, W. L. Speer of Osawatomie, C. C. Kerr of Council Grove, Virgil E. Brown of Sabetha, Athol Cochran of Pratt, F. C. Taggart of Topeka, R. W. Van Deventer of Wellington, F. H. Rhodes of Hanover, E. C. Duncan of Fredonia, C. A. Boyd of Hutchinson, O. A.

Hennerich of Hays, J. B. Ungles of Satanta, G. R. Hastings of Lakin, C. D. Vermillion of Tescott, O. W. Davidson of Kansas City, John M. Porter of Concordia, and Seth A. Hammel of Topeka. Mr. Jack Austin of Wichita and Mr. Clarence G. Munns of Topeka were also present.

The program at the meeting consisted of a presentation by Dr. Hammel, medical director of the Kansas Selective Service System, concerning the physical examination aspects of selective service and a discussion by Dr. Duncan on legislative matters. Dr. Porter also led a discussion relating to the adequacy of medical facilities in this state. Decision was made that another secretaries conference should be held at some accessable point during the next winter.

BLIND PROGRAM

The following report was made by Dr. John A. Billingsley, State Ophthalmologist for the Kansas State Board of Social Welfare, on May 31, 1941:

PROGRESS REPORT

	May 31, 1941
Number of the last eye report received	3,899
Number of eye examinations approved for Aid to the Blind	2,305
Number of eye examinations not eligible for Aid to the Blind	1,588
Numbers on the register not issued to cases between numbers 1 and 3,899	5
Number of cases not accepted and numbers were issued to reports	1
Number of re-examinations made and fee allowed	342

RESTORATION OF SIGHT PROGRAM

Total number of cases approved for treatment		1,915
Number who have not received treatment for various reasons		408
Number known to be deceased	19	
Number known not to be eligible on the basis of need	11	
Number who have refused treatment or have not been treated because of age, physical condition, etc.	115	
Number not treated for unknown cause	263	
Number still eligible for Aid to the Blind after treatment		174
(Of these 5 are known to be deceased.)		
Number not eligible for Aid to the Blind, who have been treated, but are not under treatment at this time. (Twelve of these are known to be deceased.)		284
Number now under treatment		149
Total amount authorized for cases now under treatment		$12,471.85
Number of authorized treatments completed, May, 1941	21	
Cases not eligible for Aid to Blind	7	
Cases still eligible after treatment	14	
Total amount paid on 21 cases completed this month	$1,310.47	
Doctors' fees	52.1569%	
Hospital fees	37.2003%	
Optical companies' fees	6.3336%	
Drugs	4.3092%	
Total amount paid for treatments since initiation of program		$52,246.15

PREVENTION OF BLINDNESS PROGRAM

Total number of cases approved for treatment		507
Number who have not received treatment for various reasons		124
Number known to be deceased	2	
Number known to be not eligible on on basis of need	9	
Number known to have refused treatment	5	
Number now approved for Restoration of Sight Program	6	
Number not treated for unknown causes	102	
Number of completed treatment cases (six of these are now eligible)		290
Number of cases now under treatment		93
Total amount authorized for cases now under treatment		$ 3,448.50
Number of authorized treatments completed during May, 1941	13	
Amount paid on 13 completed cases this month	$434.50	
Doctors' fees	70.5409%	
Hospital fees	15.4200%	
Optical companies' fees	2.3015%	
Drugs	11.7376%	
Total amount paid for treatments since initiation of program		$14,510.49

HEART DISEASE

The following bulletin pertaining to the diagnosis of heart disease was forwarded by the Kansas State Board of Health to each doctor of medicine in the state on May 29:

> Heart disease is the leading cause of death in the state of Kansas. Considerable effort is being made to determine the exact factors responsible for the high morbidity and high mortality of the various types of heart disease. Surveys of the diagnoses of large groups of ambulatory heart patients and those dying of heart disease are being made. At present, this work is seriously handicapped by a lack of sufficient diagnostic data.
>
> It is urged that for more practical purposes all physicians encountering heart disease use the outline given in "Nomenclature and Criteria for Diagnosis of Diseases of the Heart" which has been adapted and distributed by the American Heart Association. The book is inexpensive and should be owned and carefully studied by every physician. Besides giving the diagnostic criteria to be obtained in physical examination, there are excellent sections on radiological diagnosis, interpretations of electrocardiograms and pathological diagnosis of autopsied specimens. The terminology is that used by the vast majority of cardiologists in this country.
>
> A complete diagnosis of a case of heart disease should, if possible, consist of a least one heading from each of the following groups: (1) Etiological Diagnosis, (2) Anatomical Diagnosis and (3) Physiological Diagnosis. During the life of the patient the physiological diagnosis should be carefully subdivided into Disturbances of Cardiac Mechanism and Functional Capacity and into the Therapeutic Classification.

(1) ETIOLOGICAL DIAGNOSIS—State whether primary cause is rheumatic fever*, syphilis*, arteriosclerosis, hypertension, hyperthyroidism*, congenital anomaly, bacterial infection*, pulmonary disease or other rarer causes such as anemia, hypothyroidsm, neoplasm, thoracic deformity, trauma or psycho-neurosis. (*When one of these diagnoses is used state if possible whether the etiological factor is active or inactive.)

(2) ANATOMIC DIAGNOSIS—Under the following headings the more common findings are listed.

Disease of the Aorta and Pulmonary Arteries: Aneurysm (specify location), aortitis, arteriosclerosis of aorta or pulmonary arteries, embolism, thrombosis, spontaneous rupture or injury.

Coronary Arteries: Arteriosclerosis, arteritis, embolus, thrombosis, periarteritis nodosa, et cetera.

Myocardium: Active myocarditis, fibrosis, infarct (recent or healed) fatty infiltration, aneurysm, enlargement of chambers, et cetetra.

Endocardium: Valvular deformity with insufficiency or stenosis, bacterial endocarditis, valvular sclerosis, et cetera.

Pericardium: Acute pericarditis (fibrinous, scrofibrinous, or purulent), chronic pericarditis (adhesive without constriction, constrictive, serous), calcification of pericardium, injury, et cetera.

(3) PHYSIOLOGICAL DIAGNOSIS

Cardiac Mechanism: The most common of these are disturbances of rhythm and conduction such as auricular fibrillation, auricular flutter, paroxysmal tachycardia, auriculoventricular block and bundle branch block. From a therapeutic and prognostic vantage many of these should be further intimately classified.

Clinical Syndromes: Adams-Stokes syndrome, anginal syndrome, carotid sinus syndrome, paroxysmal dyspnea, et cetera.

Functional Capacity:

Class I: Ordinary physical activity causes no discomfort.

Class II: Ordinary physical activity causes discomfort.

Class III: Less than ordinary physical activity causes discomfort.

Class IV: Any physical activity causes discomfort.

Therapeutic Classification:

Class A: Ordinary physical activity needs no restriction.

Class B: Ordinary physical activity needs no restriction but should be advised against severe or competitive efforts.

Class C: Ordinary physical activities should be restricted.

Class D: Ordinary physical activities should be markedly restricted.

Class E: Should be at complete rest or confined to bed.

The information included therein was prepared by the Society Committee on Heart Disease and the Kansas Heart Association. It is the belief of those organizations that standardization of diagnosis and reporting of heart disease will make it possible for more adequate studies to be made concerning ways and means for controlling morbidity and mortality on this subject.

GROUP HOSPITALIZATION

The following is the group hospitalization enabling act sponsored by the Kansas Hospital Association and passed by the Legislature in its recent session:

Section 1. This act shall be known as the mutual nonprofit hospital service corporation act.

Sec. 2. Mutual nonprofit corporations may be organized for the purpose of entering into contracts with participating hospitals to provide hospital service for their subscribers. The affairs of any such nonprofit hospital service corporations organized under this act shall be managed by a board of directors of not less than fifteen members composed of:

(1) Administrators or trustees of participating hospitals;

(2) Licensed physicians exclusive of group (1), and

(3) Members of the public exclusive of groups (1) and (2), in equal proportion. The directors shall take oath of office as in other corporations and duplicates of such subscribed oaths shall be forwarded at the time of election to the commissioner of insurance for filing in his office. The by-laws shall specify the number of directors necessary to constitute a quorum, which shall not be less than ten members.

Sec. 3. Corporations organized under the provisions of this act are empowered and authorized to enter into contracts to provide hospital service for its subscribers with such hospitals, including municipal, county, proprietary and charitable hospitals, as may be approved by the State Board of Health or its successors in office. The governing bodies of municipal or county hospitals are hereby authorized and empowered to contract with mutual nonprofit corporations organized under this act to provide hospital service for the subscribers of said corporation. Such contracts shall constitute direct obligations of the participating hospitals to the subscribers: *Provided,* That nothing in any contract to be made by any such corporations with a participating hospital or subscriber shall have the effect of imposing upon any participating hospital any obligation or liability for any act, omission or default of any other participating hospital or of such corporation.

Sec. 4. The commissioner of insurance shall issue a certificate of authority to such corporation upon compliance with the following conditions: (A) It shall file with the commissioner of insurance a certified copy of its charter, by-laws, and the policy forms and rates it proposes to use. (B) It shall file with the commissioner of insurance contracts with at least twenty participating hospitals having a total of not less than three hundred beds to provide hospital service to the subscribers as required by section 3 of this act. (C) It shall hold bona fide applications for hospital service upon which it shall have collected a minimum of two months' premiums from at least two hundred subscribers, upon which it shall issue policies simultaneously. The total of such premiums shall be held in cash and shall not be disbursed until the policies are in force. Any such corporation shall be in possession of lawful assets over and above all liability in an amount not less than three thousand dollars and shall file with the commissioner of insurance a financial statement certified to by at least two executive officers. Before issuing a certificate of authority the commissioner shall cause an examination to be made of the

affairs of the corporation as provided by section 40-208 of the General Statutes of 1935.

Sec. 5. Every policy made by a corporation subject to the provisions of this act shall be for a period not to exceed twelve months, and no policy shall be made providing for the inception of benefits at a date later than one year from the date of the policy.

B. No policy except as provided in subsection E of this section, between any such corporation and a subscriber, shall entitle more than one person to benefits, except that a "family policy" may be issued, at an established rate, granting hospital benefits to a husband and wife, or husband, wife and their child or children not over eighteen years of age, who must be named in the policy.

C. Every policy entered into by any such corporation with any subscriber thereto shall be in writing and a certificate stating the terms and conditions thereof shall be furnished to the subscriber to be kept by him. No such certificate form shall be made, issued or delivered in this state unless it contains the following provisions: (a) A reference to the amount payable to the corporation by the subscriber and the times at which and manner in which such amount is to be paid; (b) a statement of the nature of the benefits to be furnished and the period during which they will be furnished; and if there are any benefits to be excepted, a detailed statement of such exceptions printed as hereinafter specified; (c) a statement of the terms and conditions, if any, upon which the policy may be canceled or otherwise terminated at the option of either party; (d) a statement that the policy includes the endorsements thereon and attached papers, if any, and contains the entire contract; (e) a statement that no statement by the subscriber in his application for a policy shall avoid the policy or be used in any legal proceeding thereunder, unless such application or an exact copy thereof is included in or attached to such policy, and that no agent or representative of such corporation, other than an officer or officers designated therein, is authorized to change the policy or waive any of its provisions; (f) a statement that if the subscriber defaults in making any payment under the policy, the subsequent acceptance of a payment by the corporation or by one of its duly authorized agents shall reinstate the policy, but with respect to sickness and injury, only to cover such sickness as may be first manifested more than ten days after the date of such acceptance; (g) a statement of the period of grace which will be allowed the subscriber for making any payment due under the policy. Such period shall be not less than ten days; (h) a statement that the subscriber may choose any hospital for hospitalization.

D. In every such policy made, issued or delivered in this state: (a) All printed portions shall be plainly printed; (b) there shall be a brief description of the policy on its first page and on its filing back; (c) the exceptions of the policy shall appear with the same prominence as the benefits to which they apply; and (d) if the policy contains any provision purporting to make any portion of the articles of incorporation or by-laws of the corporation a part of the policy, such portion shall be set forth in full.

E. A hospital service corporation may issue a group policy, provided the group of persons thereby insured conforms to the requirements of section 40-1109 (k) of the General Statutes of 1935, and provided such policy and the individual certificates issued to members of the group shall comply in substance with this section. Any such policy may provide for the adjustment of the rate of premium based upon the experience thereunder at the end of the first year or of any subsequent year of insurance thereunder and such readjustment may be made retroactive only for such policy year.

Sec. 6. The rates charged by any such corporation shall be filed with the insurance department. Premiums shall be payable in cash and no policy issued by such corporation shall provide for any assessment or contingent premium.

Sec. 7. Such corporation shall maintain unearned premium and other reserves upon the same basis as that required of domestic stock insurance companies transacting the same kind of insurance.

Sec. 8. Any director, officer or member of any such corporation, or any other person, may advance to such corporation any sum or sums of money necessary for the purposes of its business or to enable it to comply with any of the requirements of the laws of this state, and such moneys and such interest thereon as may have been agreed upon, not exceeding eight percentum per annum, shall be payable only out of the surplus remaining after providing for all reserves and other liabilities, and shall not otherwise be a liability or claim against the corporation or any of its assets. No commission or promotion expenses shall be paid in connection with the advance of any such money to the corporation, and the amount of such advance shall be reported in each annual statement.

Sec. 9. Such corporations shall be subject to the provisions of this act and to sections 40-214, 40-215, 40-216, 40-218, 40-219, 40-222, 40-223, 40-224, 40-225, 40-226, 40-228, 40-229, 40-230, 40-231, 40-235, 40-236, 40-237, 40-247, 40-248, 40-249, 40-250, 40-251 and 40-254 of the General Statutes of 1935 and section 40-227 of the General Statutes Supplement of 1939, except as the context otherwise requires, and shall not be subject to any other provisions of the insurance code except as expressly provided in this act.

Sec. 10. Every corporation organized under the provisions of this act is hereby declared to be a charitable and benevolent corporation.

Sec. 11. (a) No corporation subject to the provision of this act shall during any one year disburse more than ten per cent of the aggregate amount of the payments received from subscribers during that year as expenditures for the soliciting of subscribers, except that during the first year after the issuance of a permit, such corporation may so disburse not more than twenty percentum of such amount and during the second year not more than fifteen percentum. (b) No such corporation shall, during any one year, disburse a sum greater than fifteen percentum of the payments received from subscribers during that year as administrative expenses, except that during the first two years after the issuance of the permit, such corporation may disburse not more than twenty percentum of the payments received from subscribers. The term, "administrative expenses" as used in this section, shall include all expenditures for nonprofessional services and in general, all expenses not directly connected with the furnishing of the benefits specified in this act, but not including expenses referred to in subsection (a) hereof.

Sec. 12. Any such corporation shall pay the commissioner of insurance as a fee for the examination of

the charter and other documents and the issuance of a certificate of authority the sum of ten dollars. The annual fee for the filing of the annual statement and the renewal for the certificate of authority shall be ten dollars.

Sec. 13. No provisions of this act or of any policy for hospital service, between a corporation subject to the provisions of this act and a subscriber shall in any way affect the operation of article 5, chapter 44, of the General Statutes of 1935 and amendments thereto constituting the workmen's compensation law.

Sec. 14. This act shall take effect and be in force from and after its publication in the statute book.

The officers of the Kansas Hospital Association are presently making plans for the institution of a state-wide program under this act.

PHYSICIANS FOR BRITAIN

The American Red Cross recently announced that it would sponsor an achievement campaign wherein 1,000 American physicians will be obtained to furnish assistance to Great Britain.

The physicians enlisting for this service will be assigned to either the Royal Army Medical Corps or the civilian Emergency Medical Service. The requirement for acceptance are as follows:

"Applicants must be citizens of the United States, unmarried or without dependents, and no more than forty years of age for service with the RAMC, nor more than forty-five years old for appointment to the EMC. Professional qualifications of all applicants will be reviewed by a subcommittee named by the Division of Medical Sciences of the National Research Council, working in collaboration with the American Medical Association. Applicants must be graduates of Class A medical schools in Canada or the United States and must have had at least one year of clinical hospital training in an institution approved by the American College of Surgeons. For the EMC condidates must have been in practice at least five years and not more than ten years. All applicants will be required to pass a stringent physical examination.

Doctors accepted for service with the RAMC will be commissioned as lieutenants with remuneration at approximately $1456.50 annually. At the end of twelve months of satisfactory service they will be promoted to the rank of captain with annual pay of approximately $1800. At the end of each year of satisfactory service lieutenants will receive a bonus of $100, equivalent to approximately $402.50, and captains $150 or $603.75. Promotions beyond the rank of captain will be upon general merit. Accepted candidates will not lose their citizenship except in cases of dual nationality under which the individual might be classed as a British subject. Under the Geneva Convention, signed not only by the belligerents but by the United States as well, signatories have undertaken to respect and protect all medical personnel. This Convention states in part:

"Personnel charged exclusively with . . . the treatment of the wounded and sick . . . shall be respected and protected under all circumstances. If they fall into the hands of the enemy, they shall not be treated as prisoners of war".

The minimum tenure of service with the RAMC is one year, the contract to be renewable each successive year. Volunteers for the duration of the war also will be accepted. Free transportation will be provided from the home to point of duty and, upon termination of service, to a selected place of residence in the United States. American officers will be eligible for the same disability compensation as others in event of disability or death.

Volunteers accepted by the RAMC are liable for service wherever British troops are located, mainly in Europe, Africa and Asia. Assignment to any particular place cannot be guaranteed, though wishes of applicants will be considered. They may be required to serve as medical officers in charge of native troops and, if serving in India, may be required to serve under Indian medical officers.

In addition to regimental medical units, assignments will be to field ambulance units, motor ambulance convoys, casualty clearing stations, ambulance trains, general hospitals, convalescent depots, hospital ships, and units serving with stationary troops, such as anti-aircraft formations and the like.

Comparatively few of the volunteers will be assigned by the British Red Cross to the Emergency Medical Service. Those receiving such appointment must sign a contract for full-time employment for one year in the first instance at any hospital, public or private, the Ministry of Health may designate. Duties will include hospital treatment of Service and civilian air raid casualities, other Service casualties, and sick, and a number of special categories of civilian sick for the treatment of which the Government has undertaken financial responsibility for duration of the war. Rates of pay are the same as for British subjects, £550 a year, or approximately $2213.75, with full board and lodging, or an alliwance of £100 where board and lodging are not provided. In case of injury or death in the course of their employment or as a result of enemy action, compensation is the same as that provided for British subjects under the Personal Injuries Scheme for civilians."

COUNTY SOCIETIES

The Butler-Greenwood County Medical Society held a meeting on April 11 at El Dorado. Drs. Ray Balyeat and Hazel Balyeat of Oklahoma City, Oklahoma, spoke on "Allergy of the Respiratory Tract" and "Allergic Dermatosis."

The Chase County Medical Society sponsored a crippled childrens clinic in conjunction with the Kansas Crippled Children's Commission at Cottonwood Falls on April 3. Dr. A. E. Bence of Wichita assisted in the clinic.

The Franklin County Medical Society held a meeting on April 30 in Ottawa. Indigent medical care plans for the county were discussed and Dr. Thomas L. Foster of Osawatomie spoke on "The State Hospital and the General Practitioner." At a meeting of that society held in March. Dr. Ray M. Balyeat of Oklahoma City, Oklahoma, was the guest speaker.

The Linn County Medical Society met in Mound City on May 2.

The Lyon County Medical Society held a meeting in Emporia on April 1. Dr. M. L. Perry of Topeka spoke on "High Lights on Diagnosis of Psychosis." A movie on "Studies of Human Fertility" was also shown.

The Pottawatomie County Medical Society held a dinner meeting at Onaga on May 6. Dr. A. H. Bressler of Wamego and Dr. T. C. Hinkle of Onaga were elected as honorary members of the society.

The Saline County Medical Society held a dinner meeting in Salina on April 24 honoring Dr. E. R. Cheney of Gypsum, who has practiced medicine for fifty years.

The Sedgwick County Medical Society elected officers for the coming year at a meeting of that organization held in Wichita on May 20. Dr. Charles Rombold was elected as the President to succeed Dr. A. P. Gearhart, Dr. E. E. Tipton as Vice-President, Dr. Harold O'Donnell as Secretary and Dr. Earl Mills was re-elected as Treasurer. Dr. A. P. Gearhart, Dr. C. A. Hellwig and Dr. Bruce Meeker were elected as members of the Board of Directors and Dr. George Corrigan as a member of the Board of Censors.

The Sumner County Medical Society met in Wellington on May 22. Dr. J. V. VanCleve of Wichita presented a discussion of "Common Skin Diseases." At another meeting of that society held on April 17, Dr. Henry Tihen of Wichita spoke on "Newer Concepts of Gastro-Intestinal Diseases."

The Washington County Medical Society held a dinner meeting in Washington on May 6.

The Wyandotte County Medical Society held a joint dinner meeting with the pharmacists of Wyandotte County, in Kansas City, on April 15. Dr. N. E. Melencamp of Dodge City spoke on "The Doctor and the Pharmacists" and Mr. Al F. Williams of Topeka spoke on "The Pharmacist and the Doctor." At a meeting on May 20, Mr. C. G. Munns of Topeka was the guest speaker.

MEMBERS

Dr. Donald F. Coburn of Kansas City and Dr. Charles K. Shofstall of Kansas City, Missouri, were the authors of an article on "Glossopharyngeal Neuralgia" which was published in the April issue of the Archives of Otolaryngology.

Dr. L. G. Glenn formerly of Protection has moved to Council Grove where he will be associated with Dr. T. P. Haslam. Dr. J. L. Ptacek, who was formerly associated with Dr. Haslam, has moved to Webster City, Iowa.

Dr. C. Alexander Hellwig of Wichita is the author of an article on "Rapid Tissue Diagnosis; Comparison of Microscopic Diagnosis Obtained from Terry's Razor Sections and from Paraffine Sections in 4,326 Biopsies" which was published in the April issue of Archives of Surgery.

Dr. T. T. Holt of Wichita was elected Vice-President of the American College of Physicians at a recent meeting of that organization.

An abstract of the article, "Therapy in Pneumonia" by Dr. R. H. Majors of Kansas City published in the December issue of the Journal, was printed in the February issue of Southern Medicine and Surgery.

An abstract of the article on "Cleidocranial Dystosis" by Dr. Paul W. Miles of Kansas City, which was published in the November, 1940, issue of the Journal was published in the February issue of the International Medical Digest.

Dr. J. N. Sherman of Chanute and Dr. John Mitchell of Salina have recently been named as county health officers for Neosho and Saline Counties respectively.

Dr. M. R. Stapp formerly of Moundridge has recently located at Hesston.

An abstract of the article on "Vaginal Diphtheria" by Dr. Samuel L. Stout of Wichita which was published in the February issue of the Journal was printed in the March issue of Terrapeutica Al Dia, of Havana, Cuba.

Dr. Otis H. True formerly of Bird City has recently moved his office to Hays.

DEATH NOTICES

Dr. James Edward Burrow, 73 years of age, died on April 4 at Fort Dodge. Dr. Burrow was born in Hickman, Kentucky, on March 31, 1886, and was graduated from the Hospital Medical College of Louisville, Kentucky, in 1898. He was a member of the Chautauqua County Medical Society.

Dr. Paris Follett, 75 years of age, died on March 9, of carcinoma of the lung, at his home in Chanute. Dr. Follett was born in 1865, was graduated from the Chicago Homeopathic Medical College in 1896 and was a member of the Neosho County Medical Society.

Dr. Fred G. Poutre of Horton, 53 years of age, died on May 9. Dr. Poutre was born on January 5, 1888 at Greenleaf. He was graduated from the University of Kansas School of Medicine in 1910, and was a member of the Brown County Medical Society.

Dr. Herbert L. Scales, 71 years of age, died on March 28 of cerebral hemorrhage, at his home in Hutchinson. Dr. Scales was born in 1870, and was graduated from the Louisville Medical College, Louisville, Kentucky, in 1892. He was a member of the Reno County Medical Society.

Dr. Frank Elbert Tolle, 33 years of age, died on May 3 in Overland Park. Dr. Tolle was graduated from the University of Kansas School of Medicine in 1932. He was a member of the Johnson County Medical Society.

BOOK NOOK

NEW BOOKS RECEIVED

THE NEW INTERNATIONAL CLINICS—Volume 1, New Series Four, 1941. Edited by George Morris Piersol, M.D., Professor of Medicine, Graduate School of Medicine, University of Pennsylvania, Philadelphia, Pa. Published by the J. B. Lippincott Company, Philadelphia, Montreal, and New York. Contains 304 pages illustrated.

HEMORRHAGIC DISEASES, Photo-Electric Study of Blood Coagulability—Kaare K. Nygaard, M.D., Former Fellow in Surgery, the Mayo Foundation; Former Assistant Surgeon, the University Clinic, Oslo; Fellow of the Alexander Malthe Foundation for Research in Medicine, Surgery and Gynecology. Published by the C. V. Mosby Company, St. Louis, Missouri, 1941. Priced at $5.50. Contains 320 pages illustrated.

THE 1940 YEAR BOOK OF GENERAL MEDICINE —Edited by George F. Dick, M.D., John Berns Amberson, Jr., M.D., George R. Minot, M.D., S.D., F.R.C.P., (Edinburgh and London), William B. Castle, M.D., A.M., M.D. (Hon) Utrecht, William D. Stroud, M.D., and

George B. Eusterman, M.D. Published by the Year Book Publishers, Inc. 1940. Priced at $3.00. Containing 934 pages, illustrated. Departments are as follows: Infectious Diseases; Diseases of the Chest; Diseases of the Blood-Forming Organs, Diseases of the Kidney; Diseases of the Heart and Blood Vessels and Diseases of the Digestive System and of Metabolism.

DIRECTORY OF MEDICAL SPECIALISTS, Certified by the American Boards, 1939—Paul Titis, M.D., Directing Editor. Published for the Advisory Board for Medical Specialties, by the Columbian University Press, New York, 1940. Price $5.00.

BOOK REVIEWS

SOCIOLOGY AND SOCIAL PROBLEMS, A Textbook for Nurses—Deborah MacLurg Jensen, R.N., B.Sc., the C. V. Mosby Company, St. Louis, Missouri. 1939. Price $2.75. The study of social problems and sociology has very recently been added to the curriculum of nursing schools. The author believes that the nurse, in order to adjust well to her patient and her environment, should know something of the social factors that modify personality.

She is well aware that student nurses have neither the time nor the energy to study comprehensively a subject so inclusive. She hopes, however, through this book to give them a better understanding of human relations.

Chapters I to III discuss man's original nature and his personality development. She discusses briefly maladjustments, personality disorganization and group psychology. She points out that a patient's attitude toward a disease may be affected by society's attitude toward it.

I would recommend that "Sociology and Social Problems" be placed on the list of required reading for nurses. It will not only help them to a better understanding of their patients but also to a better understanding of themselves.

—E.S.

SHOCK, Blood Studies as a Guide to Therapy—John Scudder, M.D., With a Forward by Allen O. Whipple, M.D. First Edition. With 55 Illustrations, Five Plates, Three of Which are in Color. J. B. Lippincott Company, Philadelphia, 1940. Price $5.50.

In the first part of his book Dr. Scudder presents a historical resume of the literature on shock since its conception two centuries ago. Vasoconstriction and capillary congestion were noted early and toxemia, loss of circulating fluid, neurogenic disturbances and adrenal exhaustion were each proposed by some authors to be the fundamental disorder involved. Previous work on blood changes in shock is reviewed, special attention being given to the rise in plasma potassium as an indication of profound cell injury. (It is noted that a similar rise occurs in stored blood and may render its use dangerous in shock.)

Hemoconcentration occurs in advance of falling blood pressure and its early detection may permit therapy before the changes become irreversible. To this end it is important to know the specific gravity of peripheral blood, cell volume percent, plasma solids, and plasma proteins in venous

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OBSTETRICS — Three Weeks Personal Course starting August 4th. Two Weeks Intensive Course starting October 6th. Informal Course every week.
OTOLARYNGOLOGY — Two Weeks Intensive Course starting September 8th. Informal Course every week.
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blood, since various degrees of anemia render blood count and hemoglobin unreliable.

Part two provides a series of fifty-four case studies of shock in human patients, and emphasis is laid upon the following observations:

1—In shock there is a generalized vaso-constriction, leading to diminished volume flow, trapping of blood in the periphery, a decrease in cardiac return, fluid loss and hemocentration.

2—Determination of the specific gravity of peripheral blood by the falling drop method is more accurate than cell count, and gives evidence of the foregoing sequence many hours before the blood pressure falls, thus permitting corrective therapy before an irreversible state is reached.

3—Replacement of electrolyte loss (especially Na C1) is essential, but if overdone may result in dangerous dehydration of tissue cells.

4—Disturbance of potassium metabolism occurs in shock (values 100 percent above, or twenty-five percent below, the normal of 16.7 mgm. percent for plasma were all fatal).

5—Potassium disturbance is a measure of profound cellular damage. Normal cell potassium is 392 mgm. percent —over twenty-three times that of plasma, and a rise in plasma potassium occurred in all forms of shock except sepsis where fatalities occurred with a fall of twenty-five percent.

6—Potassium poisoning effects the nervous and muscular systems, especially cardiac muscle.

7—Therapy is dependent upon an accurate knowledge of the level of blood electrolytes (especially Na C1 and potassium) and the cellular, protein, and fluid balance.

8—Heat, fluids, Na C1, oxygen, and analgesics contribute to relieving vasoconstriction and are of great importance.

9—Transfusion of plasma or blood as indicated is essential to the restoration of blood balance.

10—Administration of the adrenal cortex hormone increases potassium excretion and causes retention of water and Na C1. This is desirable in most cases of shock (high plasma potassium)—undesirable in cases where plasma potassium is low, as in some forms of sepsis.

11—Dr. Scudder's "new treatment of shock" includes:

a. Five percent Na C1 i.v.—100 to 500 cc. at a time.

b. Eschatin (Cortical extract) i.v., twenty cc.

These are repeated as indicated by the response of pulse and blood pressure.

A laboratory manual for the newer procedures employed is found inside of the back cover.

The book is in semi-outline form and the author does not "think through" his problems with his reader who is apt to get the impression that he is looking over the shoulder of a research scholar at a notebook of historical and laboratory information, still in fragmentory form, which needs further interpretation by Dr. Scudder before its potential contribution to the subject of shock can be fully realized. —T.P.B.

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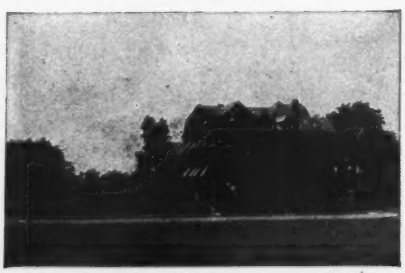

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TABER'S CYCLOPEDIC MEDICAL DICTIONARY—Including a Digest of Medical Subjects—Medicine, Surgery, Nursing, Dietetics and Physical Therapy—by Clarence Wilbur Taber, and Associates. Published by the F. A. Davis Company of Philadelphia, 1940. Priced at $3.00. The only medical dictionary, large or small (not compiled) written by a corps of medical specialists. This work is as much a dictionary of medical subjects as it is a comprehensive medical lexicon. It contains 50,000 words, including the latest terms and drugs, and will answer all of the requirements of professional groups concerned with any branch of medicine. New features not found in other abridged dictionaries are worthy of commendation; easily understandable pronunciation of words with their derivations; medical synonyms; toxicology which includes all important poisons with their symptoms and first aid treatment; nursing procedures; a full list of psychiatric terms; an epitome of diagnosis including symptoms and signs, ausculatation, percussion, palation, and other examinations; a fact finding index; a double thumb index and an appendix which is printed on colored paper to separate it from the vocabularly. There are 273 illustrations both interesting and helpful. On examination one wonders how so much can be had in such a small space and for so little cost.

PSYCHIATRY FOR NURSES—Louis J. Karnosh, B.S., Sc.D., M.D. Associate Clinical Professor of Nervous Diseases, School of Medicine, Western Reserve University; Director of Neuropsychiatry, City Hospital Cleveland and Edith B. Gage, R.N., Supervisor, Neuropsychiatric Division, City Hospital, Cleveland. Published by the C. V. Mosby Company, 1940. Priced at $2.75. A text with the combined view point of a doctor and a nurse, the knowledge of two persons well trained in psychiatry and in teaching the subject, is here brought to the public in a well balanced book, complete in up to the minute material and easily adoptable to the use of the classroom.

KANSAS MEDICAL ASSISTANTS

The Kansas Medical Assistants Society, one of the first of such organizations in the country, recently completed its first year. It is the society's aims to provide educational advantages to its members through lecures, demonstrations, discussions, et cetera.

The first year 302 membership cards were issued of which 187 members attended the second annual session held during May. Medical assistants in Barton, Finney, Ford, Lyon, Reno, Riley, Sedgwick, Shawnee, Sumner and Wyandotte counties have organized local societies and have held monthly meetings with guest speakers discussing credit problems, violations of ethics, explanation of problems in the preparation of physicians' income tax reports, medical secretaries training, the need for physical examinations before marriage, psychoanalysis, and the preparation of specimens for laboratories. At the present time assistants in several additional counties are organizing local groups. The society was formed under the guidance of The Kansas Medical Society, and local groups are sponsored by the local county medical society.

Information regarding the organization procedure and ultimate aim of the society has been requested from interested persons in several states, and during the year a member of the society appeared on the organization program of another state medical assistants group. The paper presented at that meeting will be published in an early issue of the medical journal of that state.

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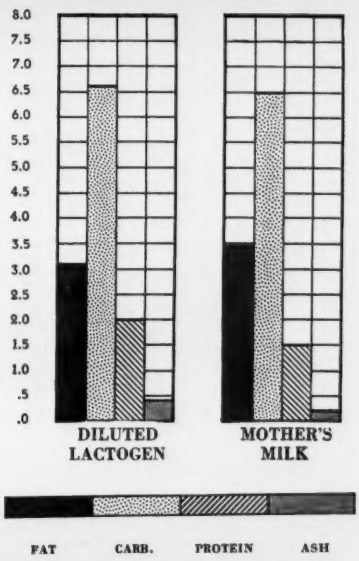
"My own belief is, as already stated, that the average well baby thrives best on artificial foods in which the relations of the fat, sugar, and protein in the mixture are similar to those in human milk."—John Lovett Morse, A.M., M.D., Clinical Pediatrics, p. 156.



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AUXILIARY

PRESIDENT'S MESSAGE

The National Auxiliary meeting at Cleveland was not only inspiring but it was informative and constructive. About 1500 delegates and guests were registered and proved their interest by a regular attendance of almost the entire program.

The National Auxiliary urges that for this coming year we study nutrition, as the first line of defense, but always under medical guidance. This is to be an educational year for each one of us. National plans and objectives will be given in the July bulletin. Your president urges each chairman in the State, as soon as she receives the July bulletin to formulate her elastic program for the coming year. Send these outlines immediately to her so that she may submit them to our advisory board for their approval. This must be done before we can present them to the auxiliaries in the early fall.

Mrs. W. Y. Herrick.

NOTICE

Your present publicity chairman desires the auxiliaries to send all news of their auxiliary activities, and items of personal interest about their membership to Mrs. Ransley J. Miller, 1300 Lakeside Drive, Topeka, not later than the first of each month.

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For the local Treatment of Acute Anterior **Urethritis**
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1. Knight, F., and Shelanski, H. A., "Treatment of Acute Anterior Urethritis with Silver Picrate," Am. J. Syph., Gon. & Ven. Dis., **23**, 201 (March), 1939.

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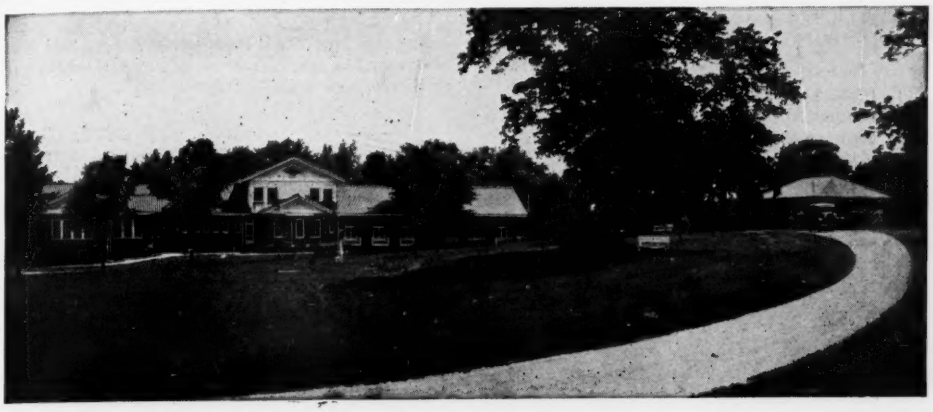

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DELEGATES FROM KANSAS TO THE NATIONAL AUXILIARY MEETING AT CLEVELAND

Mrs. W. Y. Herrick, President, Wakeeney, Kansas.
Mrs. C. D. Blake, Corresponding Secretary, Hays, Kansas.
Mrs. Foster Dennis, Dodge City, Kansas.
Mrs. M. A. Brawley, Frankfort, Kansas.
Mrs. B. W. Lafene, Marysville, Kansas.
Mrs. J. K. Harvey, Salina, excepted to attend the convention. Accompanying Mrs. Herrick to Cleveland was Miss Opal Garrett, R.N. Mrs. F. P. Helm from Topeka also attended.

ECHOES FROM THE NATIONAL CONVENTION

Ohio, newcomer to the ranks of the Auxiliary, already has more than 1500 members, in this its first year. Congratulations!

Mrs. V. E. Holcombe in her message to the National Auxiliary at Cleveland, Ohio, quotes the oriental proverb, "A journey of a thousand miles starts with a single step." We find Mrs. Holcombe's message interesting reading, particularly so, is the report of the various projects, sponsored by the state and county auxiliaries.

One progressive auxiliary in a mid western state raised sufficient funds to purchase an iron lung and an infant respirator for their hospital.

Not so ambitious perhaps but also of service, the project of a smaller auxiliary—presenting yearly subscriptions of worth while magazines to the hospitals in their community.

Wisconsin Medical Society is celebrating its 100th anniversary.

The last word heard from our President, Mrs. Herrick, was from Chicago, enroute to Milwaukee—she expects to get home June 20th.

The Shawnee County Medical Auxiliary met at the home of Mrs. L. A. Curry, of Topeka, on Monday, June 9th, for a picnic lunch. Twenty-three members were present. Mrs. C. B. Van Horn installed the new officers, who are as follows: President, Mrs. J. L. Lattimore; Vice President, Mrs. Byron J. Ashley; Secretary, Mrs. F. C. Beelman; Treasurer, Mrs. Richard F. Boyd. Mrs. Richard F. Boyd was program chairman for Shawnee County Auxiliary, and did excellent work in furnishing guest speakers from the speakers bureau during the year. Many thanks!

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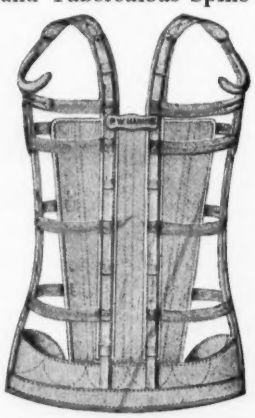

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ADVERTISING NEWS

Under the rules laid down by the American Academy of Pediatrics, their new educational-to-the-public film "When Bobby Goes to School" may be exhibted to the public by any licensed physician in the United States.

All that is required is that he obtain the endorsement by any officer of his county medical society. Endorsement blanks for this purpose may be obtained on application to the distributor, Mead Johnson & Company, Evansville, Indiana.

Such endorsement, however, is not required for showings by licensed physicians to medical groups for the purpose of familiarizing them with the message of the film.

"When Bobby Goes to School" is a sixteen-m.m. sound film, free from advertising, dealing with the health appraisal of the school child, and may be borrowed without charge or obligation on application to the distributor, Mead Johnson & Company, Evansville, Indiana.

Sulfaguanidine, a new sulfonamide derivative for use in certain diseases of the gastro-intestinal tract has been released for sale by E. R. Squibb & Sons, New York. It is distinguished from other sulfonamide derivatives by its low absorbability, and can be administered either in tablet form or as a powder in water.

The Library of the Medical Department of the University of Kansas has every desire to be of service to the medical profession in the state. Any physician who wishes to avail himself of the facilities of the Library will be welcome both in the use of its periodicals, bound volumes of periodicals, and monographs and text-books.

Under certain circumstances, provided the volumes are not being actively used by the students, the Library will send such volumes as are needed to physicians in the state, on request, for a period of one week, provided carriage charges are paid both ways.

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Are the Neuritic Symptoms of Pregnancy *due to a deficiency of vitamin B_1 (thiamine)?*

SUCH common neuritic symptoms of pregnancy as pains in arms and legs, muscle weakness, and (less frequent but more serious) paralysis of the extremities may result from a shortage of antineuritic vitamins, recent investigations appear to show. Although neuronitis of pregnancy has long been considered a toxemia, no toxins have ever been identified.

Clinical observations of Strauss and McDonald lead to the conclusion that the condition is a dietary deficiency disorder similar to beriberi, caused by lack of vitamin B_1. They report recovery in their cases receiving this therapy, including dried brewers' yeast.

Hyperemesis as Cause of Avitaminosis

Wechsler observes that all cases of polyneuritis of pregnancy recorded in the literature were preceded by long periods of severe vomiting. "It would seem," he adds, "that because of actual starvation these patients suffered from avitaminosis and consequent neuritis," a view likewise held by Hirst, Luikart, and Gustafson. Plass and Mengert observe that the practice of giving high carbohydrate feedings for hyperemesis gravidarum is still more likely to cause avitaminosis.

Dried brewers' yeast, as it is far richer than any other food in vitamin B_1 (thiamine), is being used with benefit both in the prevention and treatment of polyneuritic symptoms of pregnancy. Lewy found that additions of yeast to the diet reduced electric irritability of the peripheral nerves and brought clinical improvement. Vorhaus states that he and his associates, after administering large amounts of vitamin B_1 (thiamine) to 250 patients having various types of neuritis, including that of pregnancy, observed in about 90% of cases "varying degrees of improvement, i.e., from partial relief of pain to complete disappearance of all symptoms."

Need for Vitamin B_1 (thiamine) in Lactation

Evans and Burr, Hartwell, Sure and co-workers, and Macy *et al* are among numerous authorities who find that the nursing mother also needs a supplement of vitamin B_1 (thiamine) from 3 to 5 times the normal requirement. It is accepted that during pregnancy and lactation the requirement for vitamin G (riboflavin) is increased.

Consisting of nonviable yeast, Mead's Brewers Yeast Tablets offer not less than 50 International vitamin B_1 (thiamine) units and 50 Sherman vitamin G (riboflavin) units per gram (20 International units of vitamin B_1 and 20 Sherman units of vitamin G per tablet).

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